The Orchadian

Volume 18, Number 1 www.anos.org.au September 2014

Official Journal of the Australasian Native Orchid Society

Celebrating 50 years of cultivating, studying and promoting Australasian Orchids.

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Dendrobium Warringah 'Purple .Heaven' AM/ANOS grown by Ray Clement of Tinonee Orchids.

The Orchadian

Official Journal of the Australasian Native Orchid Society Inc.
Founded August 1963
www.anos.org.au
Dedicated to the Study and Conservation of Australasian Native Orchids
Print Post Approved: 100000950, ISSN 0474-3342
Patron: David Cannon

September 2014 Volume 18 Number 1

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Subscription Rates (in AUD$)

Australia	$50
Asia/Pacific	$60
Rest of World	$70

Refer to www.auspost.com.au for application of international postage rates.

The Orchadian is printed at the University of Wollongong.

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Good quality sharp illustrations or colour digital images should be submitted as separate files, with nominated location identified by place-holders in the text. Images of less than 3 megapixels should be avoided where possible. The editor is responsible for final selection of pictures.

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Editorial

Welcome to the first issue of the 18th Volume of The Orchadian. Our 50th year is now behind us and we continue to promote, show and enjoy native orchid species and hybrids.

Speaking of the hybrids, aren't we seeing some real stunners now. Some of the most notable have come from the stable of David Butler of Green Vista Orchids. In this issue he discusses three great parents and three top hybrids that have contributed to the golden, floriferous hybrids we are seeing around the show benches now.

In this issue I bring you one of the articles I promised last time—the third place getter in the AOF Essay competition from last year. Arthur Stafford details how he got into orchids, and how they managed to get them into their clutches. A different tune maybe, but an outcome we are all familiar with.

Our president Tony Clarke takes us on a tour of the collection of Don Cruickshank on the annual open day he holds—and at which he was given Life Member status of the ANOS Newcastle Group. Tony's photos are supplemented by more photos from David Butler of more flowering plants of the collection, including a great display of *Dendrobium bigibbum* (and hybrids) and a rainbow of hybrids.

Our colleagues at the Australian Network for Plant Conservation have a fundraising project with native orchids in mind. I urge you to read the article on what they have planned, and if possible—either personally or as a group contribution—consider their request for funding through a crowd funding process. The outcomes are a valuable, dedicated facility to propagate and manage germplasm of the threatened orchids in Australia.

John Klepetko, one of the NSW Associate Judges, has compiled a table on the features of the awarded *Den.* Avril's Gold clones with an intent of getting benchmarks for awarded plants that can be used to identify when plants are worthy.

Another of our NSW Associate Judges is presenting a paper from their presentation. Lily Tan undertook a synopsis of the monotypic orchid genera of Australia. I helped her produce a paper from her work and added photos of the species where I had them.

Robert Bates has provided a paper in which he describes one of the rusty hoods under the name *Pterostylis simulans*. This is another step in understanding our orchids in the drier parts of the country.

I also briefly cover a relatively new high-tech facility in SW Sydney where the plants of Australia are to be stored for the future.

I trust that you will enjoy this issue.

Greg Steenbeeke

Mobilabium hamatum, flowering plant. See more on this species on page 32.

President's Report

2014 Annual report

That special time for orchid lovers is starting with the spring flowering of our native gems. I attended St, Ives orchid festival for the first time 15th to17th August and was amazed at Henk van den Berg's display. Although I had been to Henk's home the week before and saw the plants he was going to put in the display, the massed display for me was magnificent. Henk's Dendrobium Cosmic Gold "Sandy" was judged Grand Champion and awarded FCC (AOC-NSW) and AM (ANOS)! So congratulations Henk.

In my last report I mentioned that I had commenced a fungicide programme, my plants are still rewarding me by the best flowering I have had in many years. I am of the opinion that orchids can be infected with fungus and not necessarily show any obvious signs such as classic necrosis and black/brown spotting on the leaves. Orchids can be so stressed by fungus that they lose vigour and hence don't flower or grow.

I attended Warringah ANOS Group's 50TH Anniversary last Friday evening 27th and enjoyed myself immensely. It was good to hear old members (Murray Corrigan, Roger Bedford and Barry Collins) recall the early days of Warringah ANOS. Thanks Trish Petersen and Warringah members for a great night.

The next A.G.M. at The Speciosum Spectacular is approaching quickly so it is fitting that I give tribute and thanks to the ANOS Inc. members.

Rick Winch has done an excellent job in developing the ANOS Website.

Greg Steenbeeke as editor has consistently produced *The Orchadian* at an extremely high standard with a balanced approach of horticulture and scientific content.

Ray Clement as National Registrar has co-ordinated the various state judging panels and has introduced some innovative ideas and reforms.

Dave Groffen has been his usual efficient self in handling our financial affairs.

Sheryl Lawson in assisting myself and Greg Steenbeeke.

George Oehm for work on updating the Hybrid checklist.

Peter Adams for support provided to *The Orchadian* in review and nomenclature.

Malcolm McGowan for I.T. support when required.

John Zietch for finalising the revision of our by-laws.

Phil Ritchie in communicating with the Groups and liason work as secretary.

Anne-Maree Mitford for handling a range of Conservation matters.

And to Mike Fish and Phil Bunney for their input at Council meetings.

Hope you are all enjoying your native orchids as much as me.

Tony Clarke

Den. bowmannii x *nugentii*

How I Became Interested In Orchids

Arthur Stafford

How did I become interested in orchids? No doubt a familiar thought to all orchid monomaniacs despite their denials to the contrary that orchids are an addiction; even an affliction to one's own natural good and sane behaviour. The Mental Health Departments of all States, Territories and Nations should be most concerned about this ailment. Me. I'm not addicted. In fact, I do not consider myself an orchidaceous person. I am just a collector with a mission. I will not let them die when I find them in the bush on downed trees exposed to the plundering of stock and wildlife, lying under collapsed embankments of creeks or in front of a charging bulldozer. I save them, treat them and grow them on so that I can just stand and gaze at the wonders of these beautiful, wondrous and tenacious plants. When I have too many of one particular type, I sell them to other, sane interested persons. However, I only wish I could enthuse all Australians to embrace their very own treasures but, ALAS! *"They are too small. They are not big enough."* - to parade before one's distinguished visitors - *"They are only Australian orchids"*.

I do not scoff too loudly at others though, as I have not always considered orchids to be spectacular or interesting or even worthy of collecting in a serious way. One sees them in every nursery and variety store around the country. Big, flashy, showy, beautiful and over priced. Constantly they die after you get them home or when the flowers have disintegrated and the plants are thrown into the rubbish bin after a few weeks of neglect. These are the cultivated, generically engineered and exotic plants not necessarily suited to our clime, or bought by well meaning persons, who did not seek the likes of the recipient, before wasting their money on an unwanted gift.

Dendrobium speciosum, yet to flower, from the fire break track.

In the early 1990s I went to England and stopped over in Singapore. I opted to remain within the airport precinct and spent a number of hours in the most sickly atmosphere that I have ever encountered, before or since. All because of orchids. They were everywhere. Hundreds of them. Climbing columns, trailing down from hanging baskets, in every hue and size. It did nothing to excite my desire to become interested in them.

After becoming disillusioned with my profession of almost thirty years, I opted for a life-change experience and purchased a small property on the edge of a small, little known mountain range. My son and I worked hard putting up fences to make paddocks and whipping the place into shape. I began transforming the property from the tree and shrub denuded, Lantana and other exotic weed covered paddocks, to what it seemed the countryside might have been before being cleared and used as cattle grazing land by the previous owner. To do this, I walked many kilometres on neighbouring properties collecting plant specimens for the Herbarium to identify. I began purchasing these indigenous species from

Dendrobium x *gracillimum* from the fire break track

community nurseries as well as collecting the local seed, growing seedlings and planting them out. This pleasurable wandering began my grudgingly slow interest in orchids and as in a long ago learned quote, my neurosis started:

> "IF. *A very small word of infinite, intellectual significance. It indicates actions commenced but not yet completed, with the possibility of alternative outcomes.*" (Author unknown)

Goals, Achievements, Dilemmas, Disappointments

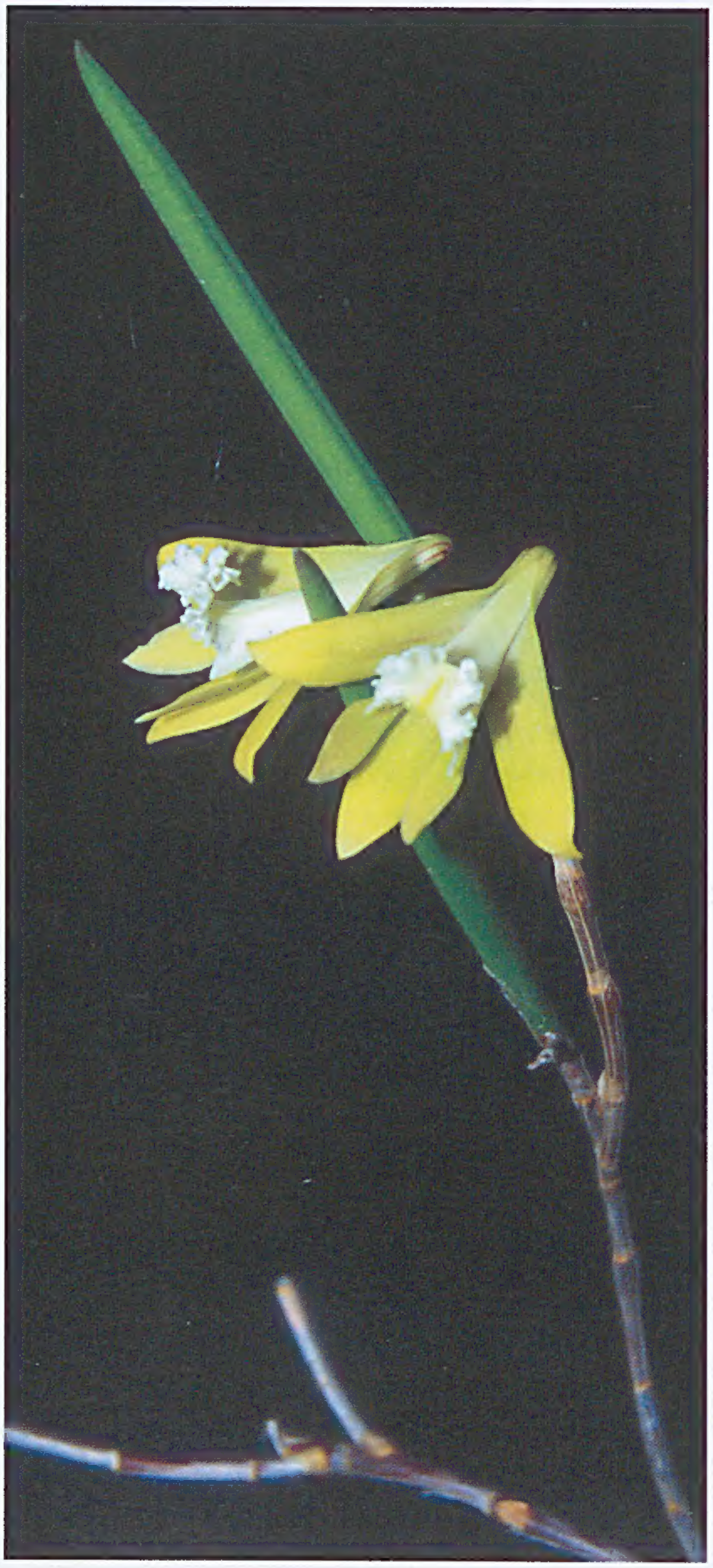
IF during March 2001, a neighbour had not decided to move out of the district and lumber me with a number of large cultivated exotic orchids in beautiful terracotta pots, I might have been allowed to stumble along in my blissful unawareness of these magnificence plants. They were a *Cymbidium* variety with fancy names like "Black Prince" and "Mirretta", or similar. They did have labels stating their cultivation details when I was given them, but like any other uninterested person who has reluctantly accepted a gift from another, the labels became lost and the orchids were placed at the back of a nursery for a considerable period of time and neglected. What a delight when two years later they flowered with long canes of many flowers in coarse dark blotched and dull gleaming cream petals. The flower was almost as large as a hand and had a delicate cologne. I moved them to a more prominent place so that I could view them at will whilst working nearby. Alas! They deteriorated and started to "die" within a few weeks. This was one of my first lessons. If an orchid plant does not like the area in which it has been placed, it will not perform and will most probably die or fall away in quality. Back they went to the rear of the nursery and there they remain. I have since divided and re-potted many of these magnificent plants and they all stand in pride every year and like a child with a new toy, I show them to all my family members and visitors when they are in flower.

IF I had not followed that fire-break track along a ridge-line that mild day in August 2002, I would not have seen those old dead logs lying across the track, one with strange spatula leaves and dumpy pseudobulbs of about fifteen centimetres in length, growing at what would have been the top of the tree in times past and on another log nearby, a spindly plant with thin ribbed pseudobulbs growing on the underside with most of the plant crushed and dead. As this timber would have been shattered and pushed aside by the bulldozer when next clearing the fire-line the plants would have been destroyed, so I brought them into the nursery, potted them up with what litter and soil I had available and put them next to the previously mentioned plants. They have been divided and re-potted into a number of different mixtures since and have been moved to different locations to achieve a positive result. The slender plant flowers profusely every year and was later identified by EPA Officers as *Dendrobium* x *gracillimum* and one of the best coloured specimens they had seen. Whilst the other plant is still strong and very healthy, it has not increased in overall size nor has it ever flowered. It seems to be happy just making new plants and it has been tentatively identified as *Dendrobium speciosum,* but until it flowers the variety will remain a mystery. It is the first plant I inspect every morning as I walk through my nursery sheds and maybe, just maybe, one day I will be rewarded with some beautiful, rare, not previously seen, exotically coloured flowers.

IF I had not walked up a Lantana choked gully in early April 2003 looking for a missing cow, I would not have found a veritable mini rainforest that extended for about eight hundred metres to a rocky cliff face covered in *Hoya australis* vine and many different types of native ferns. A very old, long dead Moreton Bay Fig tree (*Ficus macrophylla*) was about half way along this gully. All of it's bark and branches were lying at, or near it's base. On these broken shards of thick bark were growing strange plants I had not seen before. They were made up of short, thin round stems (with no "leaves") and the plant was about twenty centimetres long. As I moved the broken pieces of the tree around, I found dozens more of this plant as well as one I did know, the Tick Orchid (*Dockrillia linguiformis*). I gathered them all up and brought them back to the farm, forgetting the rest of my search for the missing animal - the first missed signs of a derangement.

I had noted how these plants grew on the bark from the fig tree and those plants that were still securely attached to the shards were hung in my nursery whilst those that had become separated, were secured to pieces of board and broken tree branches, as well as on the trunks of trees growing along the creek that runs through our property. Despite some losses, many of them survived and flowered every year. I later had the plant identified by the Herbarium as the "Scrubby Pencil" Orchid (*Dendrobium bowmanii*). It's stiff, arrogant leaves and flowers of green and white are a delight to view. Despite most of them surviving the 2010-2011 floods, the remaining trees were taken away in the January floods, just past. However, the plants I had mounted on epi-boards and on the trees above the creek level, are growing quite happily and one plant in the nursery has thrown "keiki roots" along a stem. I am told that this is not unusual, but it is something I have not seen them do before.

IF my son and I had not gone hunting on the nearby ranges in mid January 2004 and had not followed a small group of Red Deer (*Cervus elaphus*) down a ridge and into a creek bed, I would not have seen in the collapsed banks, hundreds of small pinkish flowering plants. The colour was in many hues from a very pale pink to a dark lilac. On looking around at the nearby rocks and banks I saw more of these little plants growing everywhere. Being urged on by my son to go after the deer, I marked the place in my mind and some weeks later returned to the area to find most of the downed plants missing or dead. I gathered what remained and brought them into the nursery and secured them to creek rocks, epi-boards and planted them in



Dendrobium bowmannii
(Photograph by Greg Steenbeeke)

pots. I have since found many of these plants lying along the banks of the creek's upper reaches having been brought down by animals scrambling down the banks to drink at waterholes. Bringing them in, I soon had hundreds scattered around the nurseries in pots and on rocks. They flower profusely and always have numerous seed pods which have caused many new plants to come up under the benches on the moist ground. These are my darlings; the Fairy Bell Orchid (*Sarcochilus ceciliae*).

IF I had not cut up a long-downed Ironbark tree (*Eucalyptus crebra*) for firewood in the Winter of 2005, I would not have found the stiff-leaved plants growing in the hollows and cracks along it's length. I had often seen this type of plant growing on dead and living trees in full sun, always green and standing stiffly to attention in all directions. Guessing that it was the so called "Bush Orchid", I brought all of the plants in and potted them in the core material from the tree that I had cut up. Not knowing how to handle or treat them properly before potting, I had removed all of the roots attached to the psuedobulbs and made a discovery that has held

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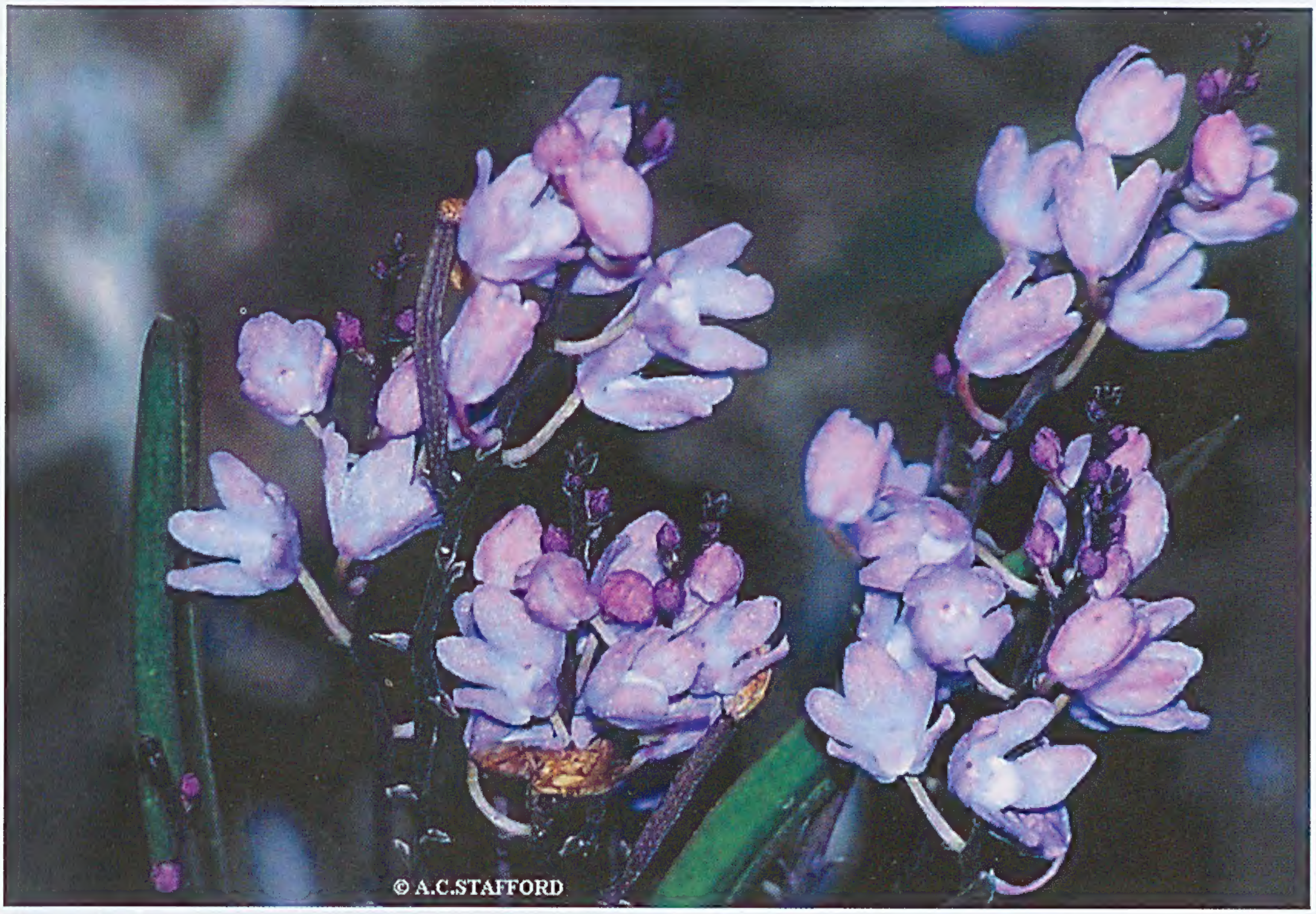
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Sarcochilus ceciliae as found in the gullies.

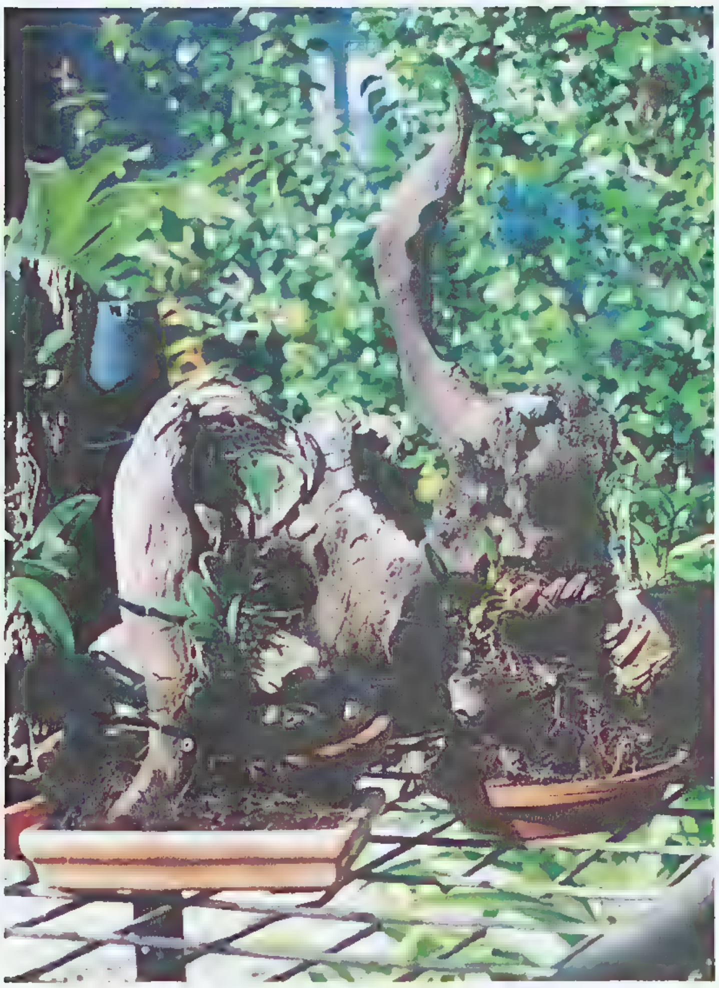
Cymbidium canaliculatum in various places throughout the property.

me in good stead when dealing with this plant and some of the other "coarser" growing species. It was not long before I had numerous new shoots and vigorous growing plants that flower profusely in many colours and shapes at the end of each year. This is probably when the "itch" really began and I have been scratching it ever since. The plants were later identified for me by ANOS members as the Channel-Leaf Orchid (*Cymbidium canaliculatum*). They have been my consuming passion ever since and I have gone out of my way to study this plant in the wild and I have tried numerous ways to cultivate it with various success and failure. I have also tried to enthuse other persons, who claim they are "orchid lovers", into its limitless beauty and toughness, but most of those who have seen the plant in the wild describe it as "an unsightly cluster of chewed leaves and dead bulbs on the sides of trees". They have not seen the flowering plants up close to discover their grandeur and beauty, the variety and shape of their petals.

I have collected a number of wild grown seed pods and along with the pods of my own "cultivated" plants; I have commenced experimenting with natural-growing techniques. I now have many seedlings growing in the method I have devised and will continue to grow them in profusion. By providing healthy flowering plants of this species to other orchid collectors and the general public at a low cost, my aim is to try and lessen some of the wholesale removal and destruction of this plant and it's habitat in the wild. However, convincing a land-holder to leave the standing dead trees with these plants growing in them is an almost impossible task. They only see a dead tree. They do not see a "garden bed", or the home for birds and other animals that use them.

IF I had not visited a commercial orchid grower's nursery during the latter part of 2005 to purchase some orchids and get some "free" advice, I would not have been told about a man who used to grow orchids on many different types of mounts and in trays of all descriptions. Being new to orchid growing, I must have shown my scepticism because the owner took me to an aside nursery and showed me King

One of the driftwood mounts I have prepared and planted out.



Another of the driftwood mounts I have prepared and planted out.

Orchids (*Dendrobium speciosum*) growing in terracotta trays. They appeared to me, to be very old and they were very large, towering above and overflowing the sides of the trays. I was told that the plants were over thirty years old and had never been removed from the trays in all that time. I was shown other arrangements of "unnatural" growing styles. I often wonder at the tenacity of the orchid plant to survive and adapt to any situation and I have turned this curiosity into practise and regularly wander the creek banks turning over flood debris to find odd bits of wood dumped under them. After cleaning the wood and attaching it to a tray, I mount an orchid, or more, depending on the size of the mount, to see if I can make that one startling centre piece, an *objet d'art - the pièce de résistance. Oh! The lunacy that makes us want to torture these innocent plants, to bend them to our will, to turn them into curiosities.*

IF in June 2006, my wife had not given me a modern computer, scanner, printer and digital camera, I would have more time to do the manual, meaningful farm work I am supposed to be doing. I revised the long ago learned profession of photography and have taken hundreds of photographs of orchid plants in their natural setting and in my own nursery and paddocks. Many hundreds of photographs of orchid flowers, petals, labellum, leaves, bulbs, seed pods, insects and habitats have been taken of many different local native orchids and the images mystically grow on my computer, causing considerable slow-downs and crashes, much to the annoyance of my wife and other family users of the machine.

These modern devices also opened up a large area for research on orchids and other plants and on how to grow them. Along came the Internet; THE WEB. A wonderful tool but a great waster of time. I found out that the use of charcoal in one's orchid potting mix was preferable to the modern day use of foam cubes and other substitute particles and I began to make charcoal. At first it was for my own use and then others learnt of my talent and orders began coming in from local enthusiasts. I knew it was not wise to include it in a web site advertising my nursery but never the less I did

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Preparing charcoal from fallen timber.

and away went more valuable "farming time". One week gathering sufficient timber, one day loading and burning, three days waiting for it too cool and two days sieving and bagging. Not to mention the lost time in dispatching the product from a rural area.

I perused all the various methods involved in such an undertaking (on The Web) and learnt the true art of making this wonderful commodity. Pits were dug. Timber was gleaned from all of my neighbours and their bulldozed stacks decreased in size as I brought in the dead timber from kilometres around. Hot, dusty and time consuming, this activity occupied days at a time as I perfected the art of making this wonderful commodity, sieving it by hand and then bagging it up for delivery to customers. Calls came in from Darwin, Newcastle, Buninyong, Townsville, Gladstone and many other places I had not heard of before. Making up pallets to send multiple bags off to far away places began to give me recurring nightmares and of course, my own orchid collection and the farm began to suffer for want of care. As other charcoal makers were closed down by the authorities in other States, the increase in demand became too great for me to handle alone, so I had to refrain from making it in large quantities and now do only that which is sufficient for my own use.

IF in May 2007 I had not taken a telephone message to my neighbour who was working his bulldozer in the nearby mountainous country putting in fire trails and a gully dam, I would not have spent three days feverishly searching downed trees and bushes, being stung and scratched and avoiding the lumbering machine, to rescue many varieties of orchids. It took me a month to sort, prune, board and pot them. Fortunately they are a very understanding plant and need no special care for a short time until mounted or potted. A nice cool, airy, moist spot and they continue to survive. I also took time out to collect specimens of other plants in the area to have identified by the Herbarium - another fanatical enterprise of mine. Amongst the plants collected were some very large clumps of King Orchids (*Dendrobium speciosum* var. *hillii*). These took days to divide (I actually had to use a chainsaw on one clump as it was too big to divide by hand) and pot the resulting smaller plants up.

The "legal" clearing of country like this, is one of the blights of our government agencies. There must be a change in government thinking to compel land-holders doing such activities, which they have a right to undertake in most cases, to obtain the services of licensed "collectors" and "salvagers" and have them available to collect orchids and other species of plants that may be vulnerable, before and during their operations. How many natural plots of known and undiscovered terrestrial orchids have been destroyed in the past? How many epiphyte orchids are lost when trees are pushed into heaps, left to die or be burnt, from these land clearing activities? Current and proposed legislative changes in this state's clearing laws will lead to the 'wholesale destruction' of our most precious commodity, our very own orchids and other native plants.

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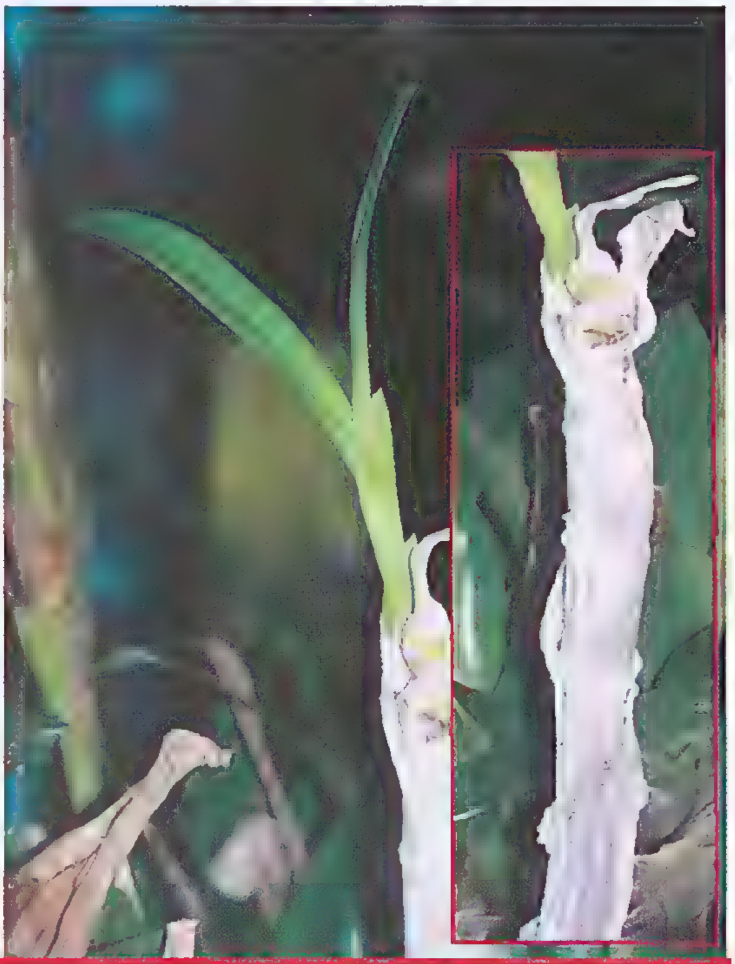
IF only I knew then what I know now. I would not have thrown away any of the single canes that had no roots, when severed from the root base whilst dividing up plants, based on the misguided advice of others that they would not re-grow or survive. I would now have many more plants to pot out and admire. One day in an annoyed tantrum at such waste, I planted a number of these "useless" canes in a self-made potting mix and have now successfully produced a number of healthy specimens. Oh! the waste of the past will be corrected in the future.

IF only the steer had not broken into the nursery area and eaten most of my two metre long Bridal Veil Orchid (*Dendrobium teretifolium*), which was hanging from the Red Cedar tree (*Toona ciliata*), it might have gone on to become a more valuable asset!



Single growth canes that are resprouting.

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SPAM ALERT!

It has recently come to ANOS Council's attention that emails with invoices, saying they are from ANOS, are going around invoicing members for money. Note that these are coming from an old address (it's in NSW) and have nothing to do with ANOS. Members should pay only to the addresses given in the front of this magazine. If you receive one, please send it on to the editor's email so further action can occur.

Australian PlantBank—Saving Species in Western Sydney

Greg Steenbeeke

The Plant Bank facility is part of the global network of seed and germplasm storage facilities around the globe. Other partners are Kew Gardens, and the Doomsday Vault in Norway. This facility was opened late in 2013 on the grounds of the Australian Botanic Gardens in the Macarthur region, southwest of Sydney.

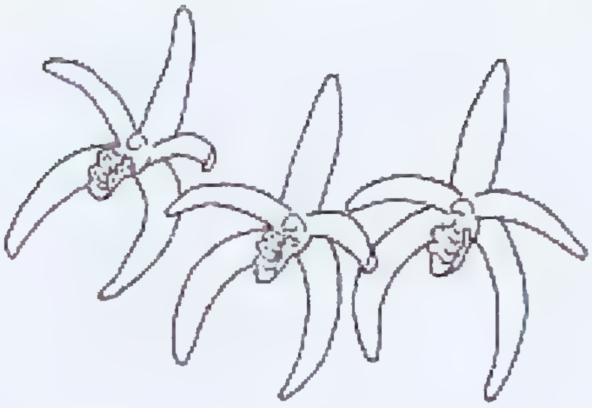
In mid August 2014 I arranged for some members of the Facebook group *Orchid Growers Australia* to have a guided tour of the facilities. This is offered most weekends and if you are in the area I would heartily recommend taking the opportunity to visit this world-leading facility. The intent is to store all of the threatened species in Australia and as many of the plants as can be arranged. The scientists at the facility are endeavouring to find ways of storing material in such a way as they can maintain viable material for as long as possible. At the facility the seed is processed, stored and tested, to ensure that not only is it viable, but can be used where necessary to restore populations of species that may be lost as a result of habitat loss or other threatening factor.

More information on the facility can be found at http://www.rbgsyd.nsw.gov.au/annan/Australian_plantbank

The Lichen Garden—natural cooling too!

View into the central courtyard from the northern side.

Dendrobium speciosum Spectacular and Australasian Orchid Species and Hybrid Show 2014



Kempsey, NSW

Hosted by Ted & Winsome Walmsley and ANOS
Mid North Coast Group

Now in its 13th year, this well established event should not be missed. Note the dates and be sure to come and experience the magnificence of a mass flowering of speciosums. A range of fine quality line bred plants will also be for sale. All are welcome to exhibit and judging will be by an all ANOS panel. Monetary prizes and trophies will be awarded in a range of classes including species, hybrids and terrestrials.

Interstate entries are encouraged with a prize for the most travelled orchid.

Dates: Sat 6th Sept 10am to 4pm [Closed for judging b/w 11am and 12noon this day]

Sun 7th Sept 9am to 2pm

Location: 57 Spooners Ave., Greenhill via Kempsey.

Details: Electronic copy of a brochure with locality map, show schedule and associated events is available by e-mailing John Zietsch at: anosmidnorthcoast@hotmail.com OR contact Ted Walmsley on (02) 6562-7150 or John Zietsch on (02) 6554-9733.

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ST. MARYS
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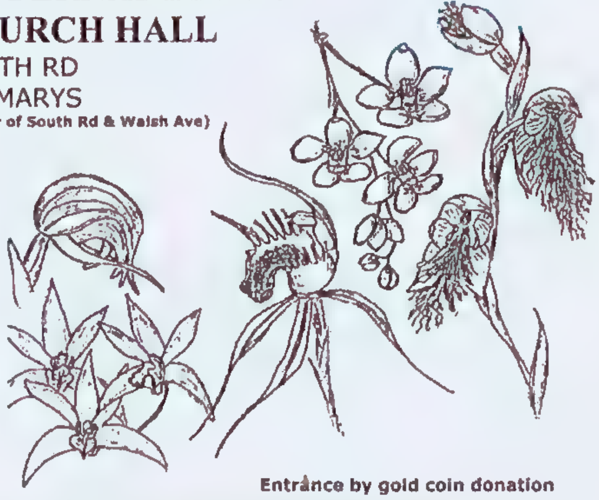

Entrance by gold coin donation

Saturday 20th September, 10am to 4pm
Sunday 21st September, 10am to 4pm

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Don's Day

Tony Clarke

Since 1999 Don and Del Cruikshanks have with, great generosity and hospitality, opened their home and garden in the first Sunday of August. This event has always been a popular event for members of the Newcastle group of ANOS (and is still the case) and all orchid lovers made welcome. At 11 am Don opens his magnificent orchid house for inspection for the world to see how orchids should be grown.

This year a well-deserved presentation was made to Don - Life Membership of the Newcastle group of ANOS BY President Phil Radford. Congratulations Don for all your work for Newcastle ANOS (Show Marshal for many years and host for a fantastic event for 15 years).

Life-member presentation (above).

Don with his plant of *Dendrobium* Greta Snow (left).

Visitors walking through the shadehouse (top right).

A large plant of *Den.* Jayden 'White' grown beautifully by Don (lower right).

Dendrobium bigibbum on Don's porch (above) and more of the display in the shadehouse (below). Photos by David Butler.

Photographs of the display of plants in Don's shadehouse. Photos by David Butler.

Good Things Come in Threes

David Butler – Green Vista Orchids (Photos by D. Butler unless otherwise noted)

Many spectacular Australian native dendrobiums have graced the show benches of recent years. In this article I would like to look at three which have fired the enthusiasm of orchid growers and inspired me to keep on hybridising. Producing award-winning orchids requires three things – good parents, a fortunate hybridiser and excellent growers!

Three Great Parents

The yellow flowering dendrobiums have become very eye-catching, especially the large-flowered hybrids with *D. speciosum* in their make-up. Two of these, together with *D. speciosum* itself, have figured prominently in the further breeding of three highly awarded *Dendrobium* hybrids. These are *D.* Australian Goldrush, *D.* Cosmic Gold, and *D.* Midas Touch. To date the first two have been awarded FCC certificates, while *D.* Midas Touch has at least two AMs.

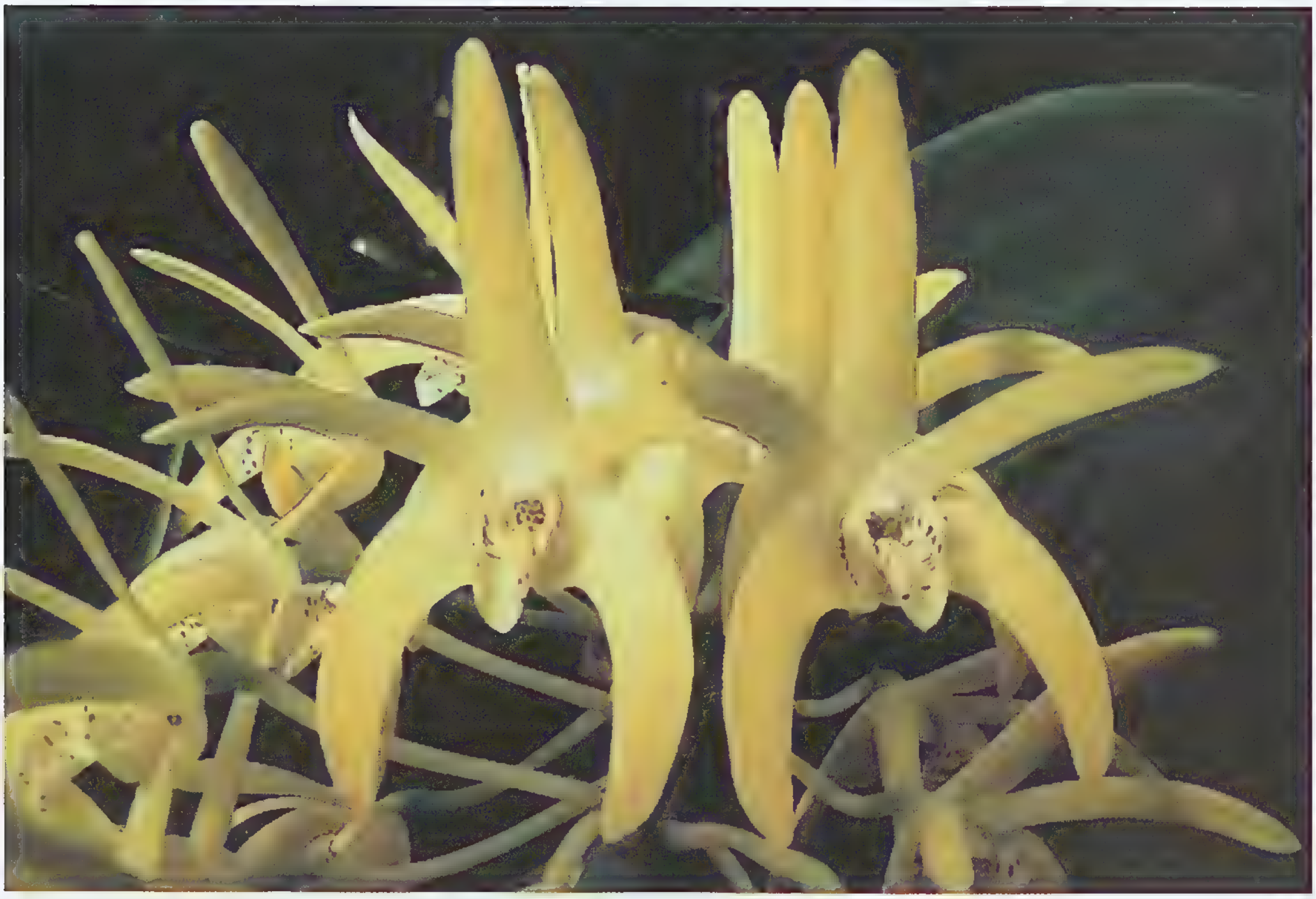
The three parents used in combination to produce these three hybrids are *D. speciosum* 'Windermere', *D.* Avril's Gold 'Pure Gold' and *D.* Yondi Tina 'Goliath'. Each of these is of interest in its own right and all are still regarded as top show-bench quality.

Den. speciosum 'Windermere'

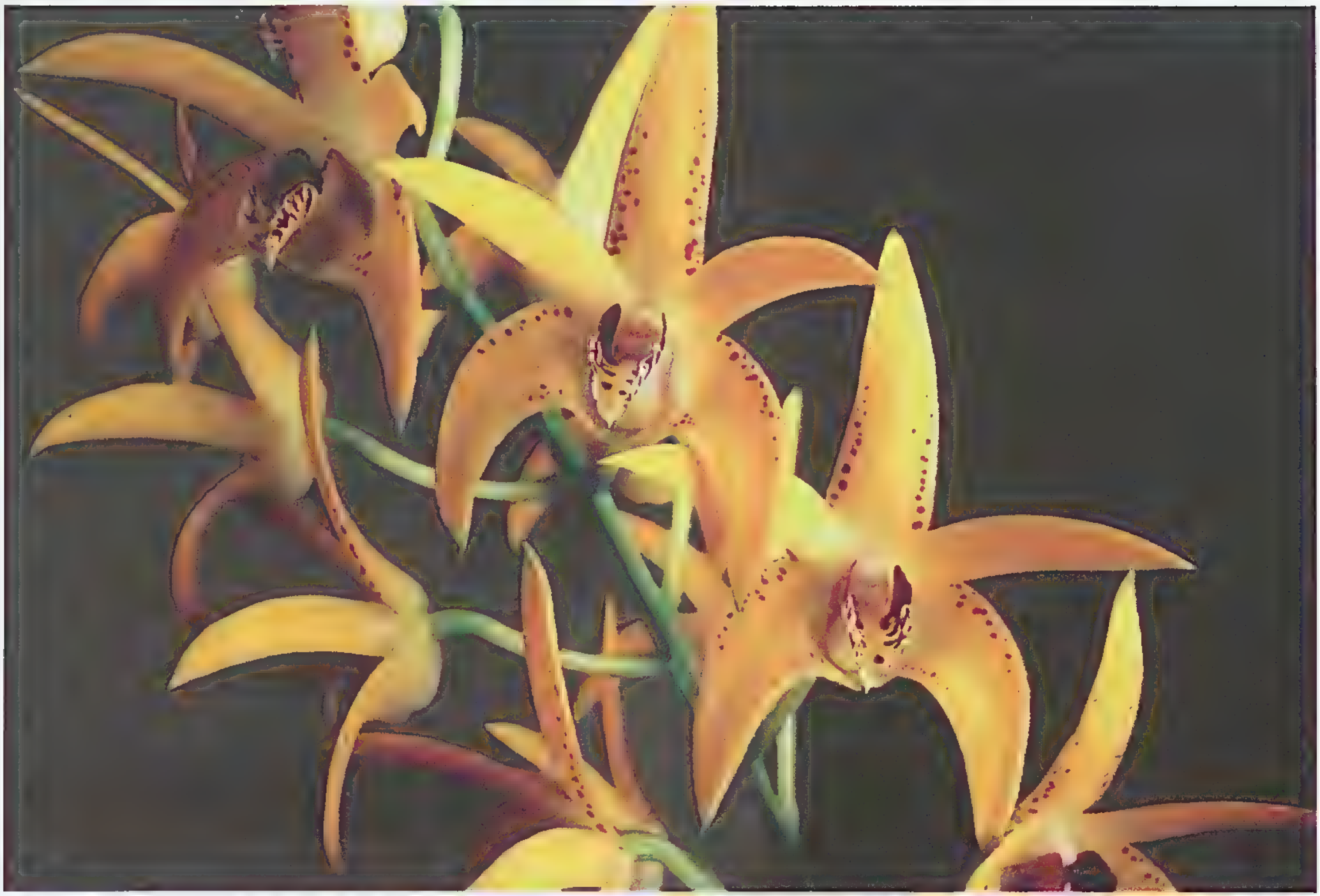
This is a classic yellow/cream example of the southern form of *D. speciosum*. It was found in a clean-up at Lewisham Hospital and rescued by Peter Bond and has gone by a variety of cultivar names including 'Bonds', '5X' or 'xxxxx', and 'Windermere'. Its discovery has proved most fortunate as it was soon found to be a top breeder and it is continuing to be used in the making of fine hybrids.

Den. Avril's Gold 'Pure Gold'

This Avril's Gold was purchased as a seedling from Neil Finch. It first flowered an overall golden colour, but every year since has shown



Dendrobium speciosum var. *speciosum* 'Windermere'.

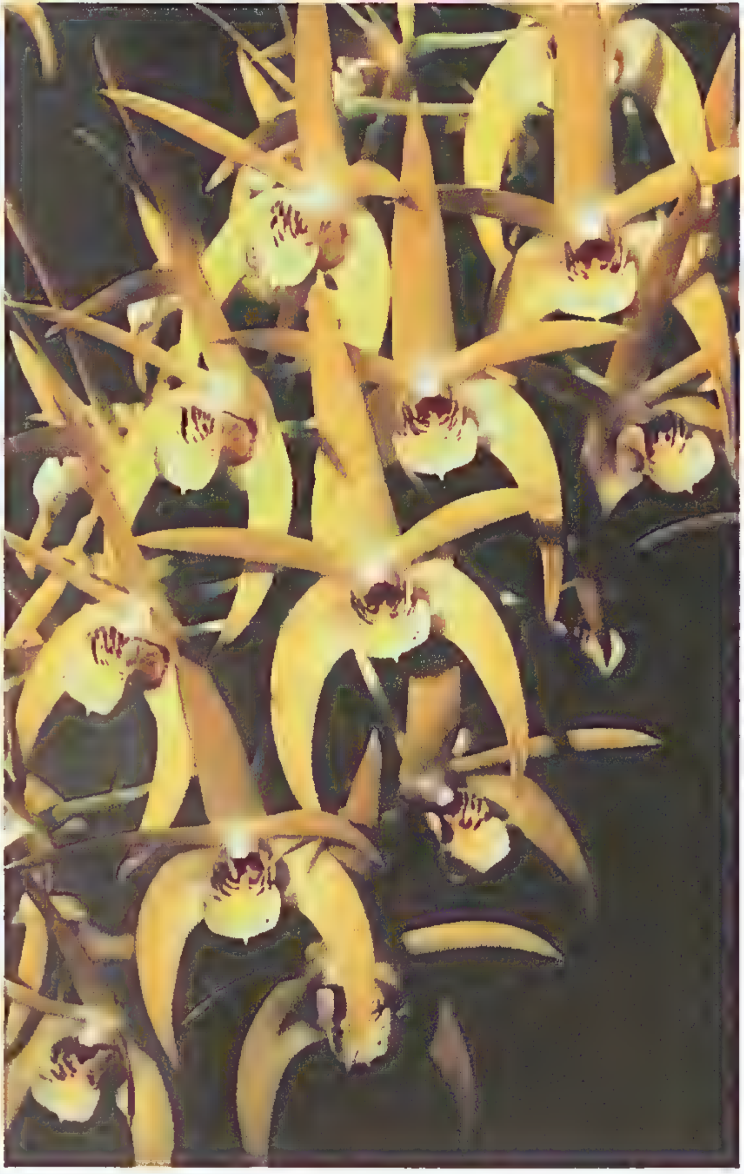


Dendrobium Avril's Gold 'Pure Gold'

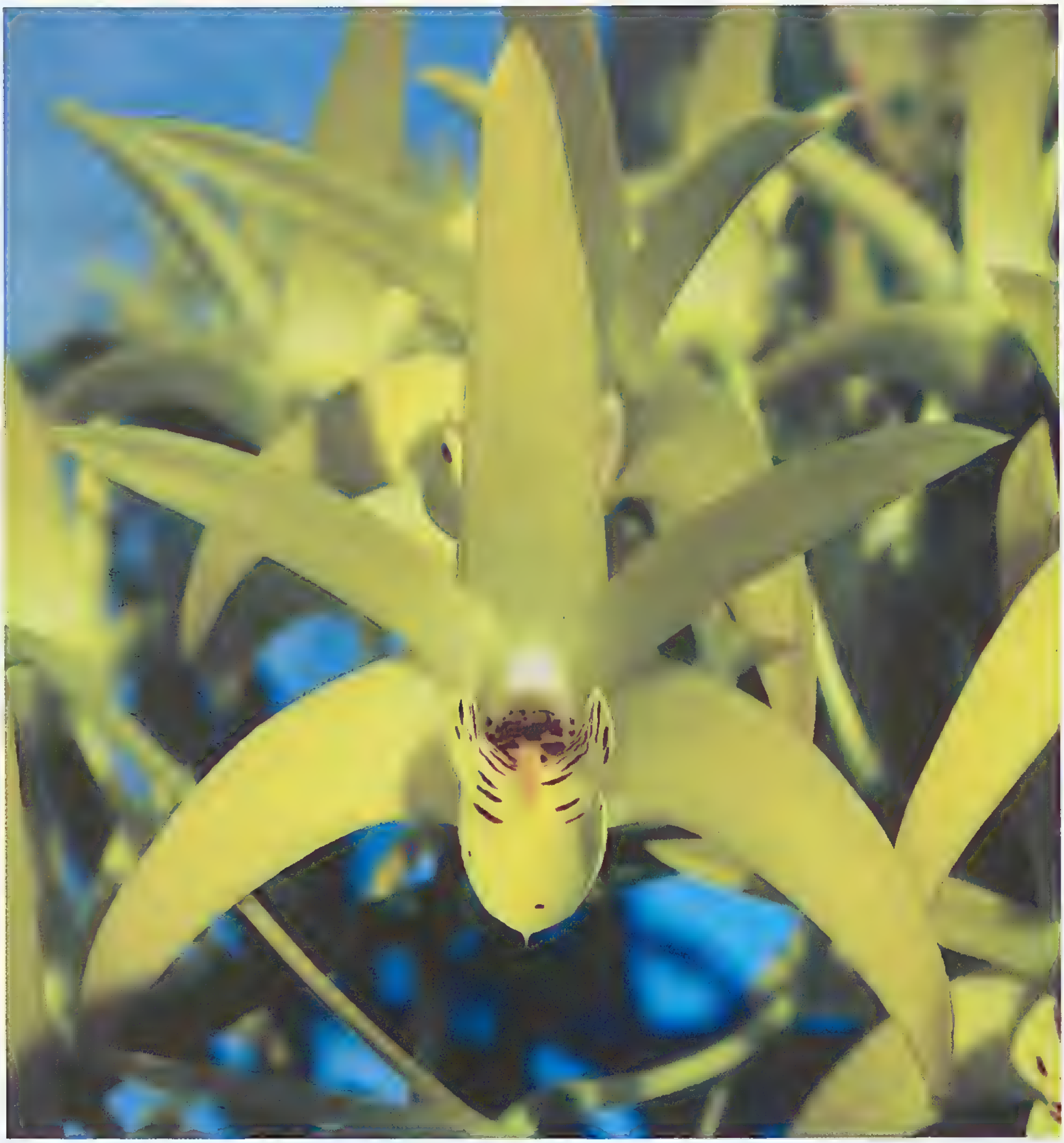
contrasting marking along the edge of the sepals. It is *D.* Aussie Child 'Avril' x *D. speciosum* 'Golden Fluke'. Neil Finch's original tag is still in the pot and legible. For an Avril's Gold it displays excellent shape with no distortion of the sepals, a quality considered unlikely in *D. speciosum* 'Golden Fluke' progeny. It seems more successful when used as the pod parent.

Den. Yondi Tina 'Goliath'

Hybridised by the late Sid Batchelor, this mating of *D.* Nerang 'Tina' x *D.* Star of Gold 'Bathurst' resulted in shapely, upright progeny which produce strong wiry racemes of large golden flowers. Of particular note is *D.* Yondi Tina 'Goliath' which was raised by Bernie Fletcher and his excellent culture resulted in it gaining an FCC/ANOS and FCC/AOC. The family tree of *D.* Yondi Tina is interesting as it seems to not only include all six of the main *Den.* species but it only uses each of these species once. The wiry nature of the raceme and slenderness of the buds are probably inherited from the *D. jonesii* in its parentage. For



Den. Yondi Tina 'Goliath' (D. Banks photo)



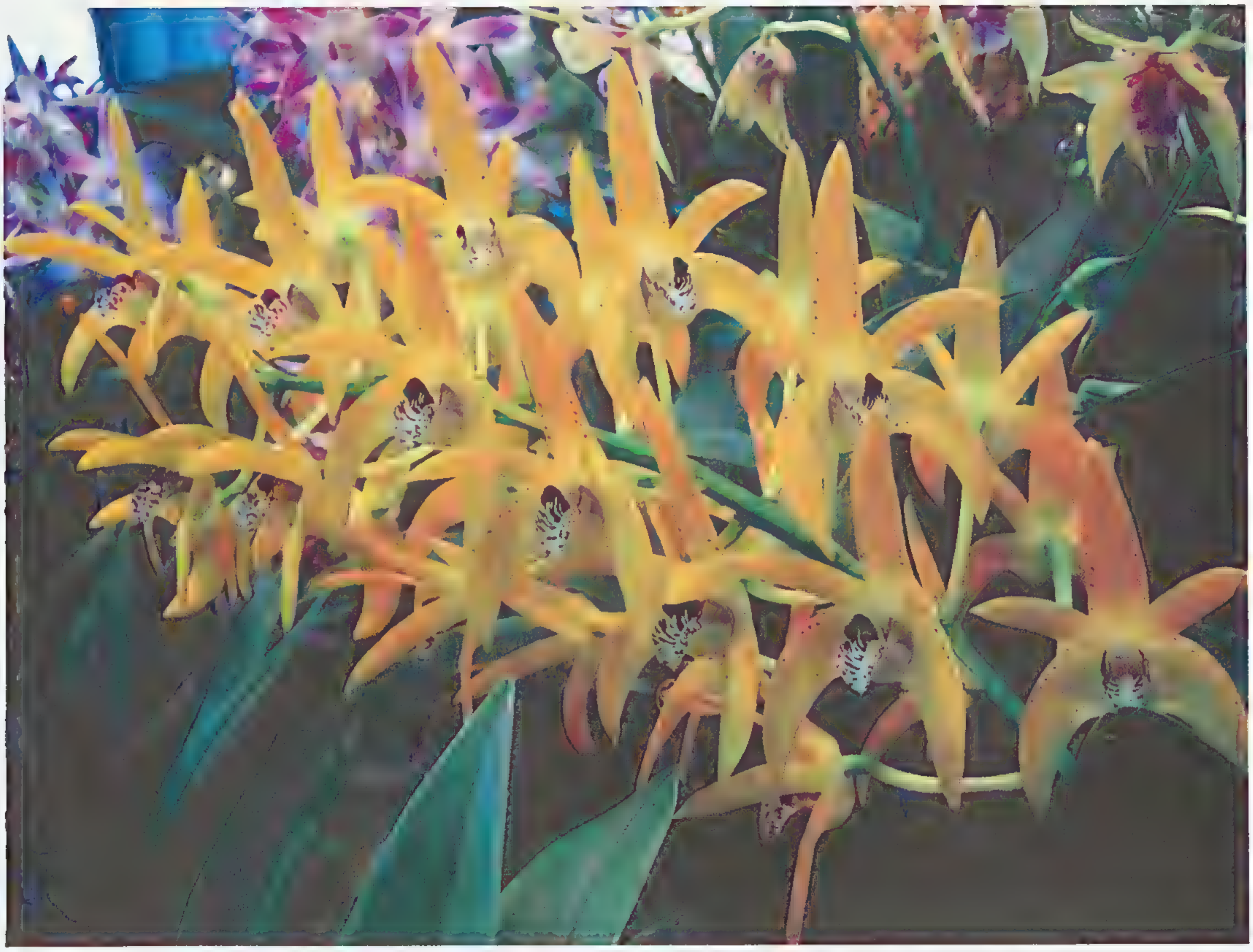
Dendrobium Australian Goldrush 'Sydenham' (M. Drobski photo).

growers of *D.* Star of Gold progeny it is worth noting that new growths are likely to rot from the top if watered overhead. This tendency seems particularly noticeable in *D.* Yondi Tina 'Goliath'.

Three Top Hybrids

Den. Australian Goldrush

This cross, being *D. speciosum* 'Windermere x *D.* Yondi Tina 'Goliath', was made several years ago by myself and registered by Australian Orchid Nursery. Flowers generally are show quality yellow/golds carried on strong racemes, the plants being reasonably compact and floriferous. Awards as high as FCC for a plant presented by Michael Drobski have resulted. One outstanding example, *D.* Australian Goldrush 'The Hulk' received an AM and was OSCOV Native Orchid of the Year for Chris Pegg. The hybrid has since been remade using other parents but I am not aware how the more recent ones compare with the original. More than one example of the original have been mericloned.



Dendrobium Cosmic Gold 'Sandy'

Den. Cosmic Gold

This hybrid, which is flying high at present, is *D.* Avril's Gold 'Pure Gold' *x D. speciosum* 'Windermere'. Henk van den Berg has grown *D.* Cosmic Gold 'Sandy' beautifully and it has just been awarded an FCC/AOC. The plant displayed several sturdy racemes, one of which carried over fifty flowers of classic shape, and all flowers were a rich golden colour. The big yellow hybrids such as *D.* Cosmic Gold can take some years to grow from flask but the eventual maturity and flowering make the effort well worthwhile.

Den. Midas Touch

We struck gold again with *Den.* Midas Touch. The name conjures up visions of gold and this cross, *D.* Avril's Gold 'Pure Gold' x *D.* Yondi Tina 'Goliath' lives up to the name outstandingly with flowers often having an overlay of pleasing, contrasting shades. Some flowers tend to favour the appearance and colouring of the *D.* Avril's Gold while the flowers on other plants more closely resemble the *D.* Yondi Tina parent. As is the case with many of the yellow hybrids the flowers of *D.* Midas Touch are more robust than either parent. Don Cruickshank and Henk van den Berg each received an AM for *D.* Midas Touch.

To sum up

Congratulations to all the excellent growers who are enabling great hybrids to reach their full potential. Green Vista Orchids, which bred the three hybrids Australian Goldrush, Cosmic Gold, and Midas Touch, is pleased with the result but there are many other hybridists working on further improving the big yellows and our other wonderful Australian natives.

NOTICE OF ANNUAL GENERAL MEETING

The AGM of ANOS Inc. will be held at the Kempsey Heights Bowling Club (10 Polwood St., West Kempsey, NSW 2440) on Sat 6th September at 4-00pm. The meeting coincides with the first day of the Kempsey Speciosum Spectacular show. An election for office bearers (7 positions) and for three (3) councillors will be held. In addition, notice is given of two motions which will be put to make the following changes to the constitution:

Motion 1: That the wording, under section 2 Definitions, after Australasian Native Orchid species be changed from 'means an endemic species...' TO 'means a species...' And similarly after the next reference to Australian Native Orchid species that the wording is changed from 'means an endemic species...' TO 'means a species...'

Motion 2: That under section 18 Composition and Membership of Council that the wording in subsection (1)(b) be changed from 'three ordinary councillors' TO 'five ordinary councillors'.

For nomination and/or proxy forms, please contact the secretary (Phil Ritchie) on e-mail: ritchiepj@bigpond.com OR by telephone (03) 9525-9606.

ANPC Orchid Conservation Project

Noushka Reiter (orchidcon@anpc.asn.au)

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Help save South East Australia's unique and threatened orchids! Funds are urgently needed to 'fit out' a conservation laboratory to propagate and grow threatened orchids for reintroduction now and into the future!

Australian Network for Plant Conservation's Orchid Conservation Program partners with the Royal Botanic Gardens Melbourne.

The Orchid Conservation Program focuses on the *ex-situ* growth and reintroduction of many of south eastern Australia's threatened orchids. The program is currently leasing laboratory facilities and equipment but needs to set up its own laboratory facilities including tissue culture capability to ensure the long term future for the conservation program. By donating towards this cause you will directly contribute to the purchasing of tissue culture equipment, growth rooms, microscopes and incubators that will be used to continue this invaluable orchid conservation work. Help make this dream a reality.

Please tell your friends and colleagues and share the link far and wide, visit our crowd sourcing fundraising site at:

https://www.chuffed.org/project/save-our-threatened-orchids/

The Orchid Conservation Program is currently the only means by which these orchid species can be propagated in sufficient numbers to significantly reduce the threat of them becoming extinct in the wild. Research over the last 15 years has led to advancement that can now show where the wasps live and how to reintroduce the mycorrhizal fungi with the orchids to enable successful reintroductions of these species.

In 2012, the program managed by ANPC Ecologist Dr Noushka Reiter funded through the Wimmera CMA, Australian Orchid Foundation and volunteers undertook Australia's first large-scale conservation reintroduction of an endangered orchid species the Metallic Sun-orchid *Thelymitra epipactoides*, of which only 30 were left in the Wimmera and little more than 1000 remain in the wild. It was the first nationally endangered species to benefit from years of laboratory research into propagation and mycorrhizal associations. 1500 Metallic Sun-orchids were reintroduced in south-western Victoria. Last winter a further 400 orchids, known for flowering in a variety of vibrant metallic colours such as red, blue, purple, green and yellow, went into the ground. In July 2013 the program introduced the Brilliant Sun-orchid *Thelymitra mackibbinii* (down to less than 50 in the wild). The success rate on reintroducing this species, monitored this July, has been 92 % the highest of all the reintroductions to date.

Over the last 18 months the program has also propagated thousands of seedlings and reintroduced federally threatened orchids to over ten sites in Victoria. In addition, demand for the services of the program has increased dramatically over this time, as the program has successfully shown it can make tangible differences to the future of these threatened plants.

ANOS volunteer hand-planting the Nationally Endangered *Caladenia xanthochila* (Yellow-lip Spider-orchid).

The aim of the program over the next 5-15 years is to reduce the likelihood of extinction of nationally threatened orchids in south east Australia. Each of the species has a Recovery Plan which we intend to help implement.

The program has partnered with many fantastic organizations over the last few years including the Wimmera Catchment Management Authority, Parks Victoria, Trust for Nature, Hindmarsh Landcare, Victorian Department of Environment and Primary Industries, Universities, Australian National Botanic Gardens, South Australian Government, Office of Environment and Heritage N.S.W and CSIRO.

The program works closely with community groups and is active in the orchid specialist group of the International Union for the Conservation of Nature. Local organisations involved in the Orchid Conservation Program include:

- Field Naturalists
- The Australasian Native Orchid Society
- Friends of the Grampians
- Friends of the Little Desert
- and many other individuals and community groups

Native Orchids in Australia

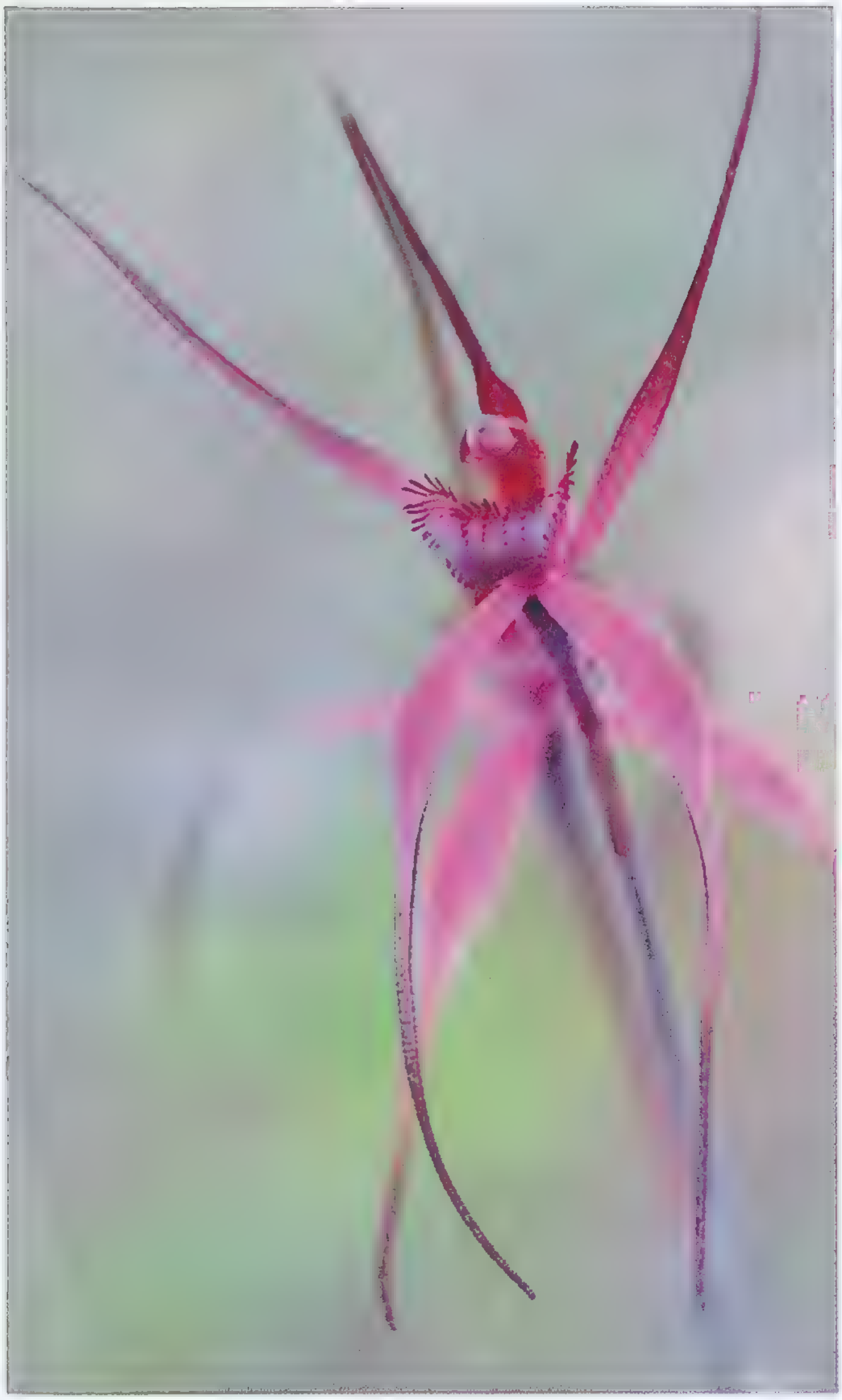
Australia has a higher proportion of orchids than any other temperate region of the world, with **over 1700 species** recorded. The majority of these are terrestrial (ground dwelling). Yet regrettably, **25% of global orchid extinctions have occurred on our continent.**

Principally these extinctions are due to large scale changes in our environment over the past 200 years as a result of land clearing, land degradation and the introduction of weeds and rabbits to our continent. Many populations exist in uncertain environments. Of the 400 orchid species in Victoria, half are threatened with extinction including 43 Nationally listed species *Environment Protection and Biodiversity Conservation Act* (1999). **Orchids represent a significant proportion of all rare and threatened flora in Australia.**

With over 100 genera of orchids in Australia, the majority of which are unique to Australia, it is impossible to cover the diversity here but those that stand out are:

- the Greenhoods (*Pterostylis*) with their arching green and white galeas (a hood formed by the fusion of the petals and a sepal) (which look like something out of a fairy story) mostly flowering in winter, trapping unsuspecting fungal gnats to pollinate them.
- the Spider-orchids (*Caladenia*) are the sirens of the orchid world – bright, showy and alluring using several means to attract their pollinators.
- the Sun-orchids (*Thelymitra*), often with their multiple flowers resembling lilies, growing in some cases to over one meter tall and as their name suggests, opening on sunny days.
- the Duck-orchids (*Paracaleana* and *Caleana*) are the sexual deviants of the orchid world employing entirely sexual deception in order to attract their pollinators.
- the bizarre underground orchids (*Rhizanthella*) a cryptic genus living entirely

The Nationally Vulnerable Spiral Sun-orchid *Thelymitra matthewsii*.


The Nationally Vulnerable Elegant Spider-orchid *Caladenia formosa*.

underground, whose seed distributed by bandicoots.

All Australian terrestrial orchids rely on a specific ‘type’ of mycorrhizal fungi to germinate and sustain their growth throughout their life-cycle and many are pollinated by their own unique species of pollinator. Loss of the pollinator or lack of the mycorrhizal fungus can have disastrous consequences.

The term mycorrhizal simply means ‘fungus root’, which describes the usually symbiotic association between the fungi and the roots of the plants, with the fungi assisting in the absorption of minerals and water from the soil, while the plant provides carbohydrates to the fungi. The degree of dependence on the mycorrhiza varies, with most orchids having the ability to draw energy via their chlorophyll, however, some terrestrial orchids have taken this relationship to a point where they no longer have chlorophyll and derive all their nutrients from their fungal partner as is the case in many Hyacinth- orchids (*Dipodiums*) and the anomalous underground orchids (*Rhizanthella*).

There are many ways in which Australian terrestrial orchids are pollinated. Some pollinate themselves but the majority require a third party to transfer the pollinia (aggregated packets of pollen) from one plant to another. Many species are yet to have their pollination syndromes described. Some orchids provide a food reward of nectar or pollen to an insect and in feeding the insect effects pollination. Others are food mimics where the orchid involved mimics a food rewarding plant such as a lily and in so doing dupes the pollinator into providing a hand - this is prevalent in the Sun-orchids. One of the more interesting pollination syndromes in Australia is sexual deception. The male thynnine wasp is drawn to the orchids by pheromones released from parts of the flower, the males copulate with the labellum (thinking it is the female wasp) of the flower and in so doing transmits the pollen from one plant to another. These sexually deceptive relationships can be very specific and in many cases a single species of orchid is pollinated by a single species of wasp. To make the situation more interesting these wasps are rely on the larvae of beetles to sustain their own offspring.

Monotypic Genera of Australian Orchids

Text by Greg Steenbeeke and Lily Tan (lilytan6@gmail.com) with photos by Greg Steenbeeke

A number of genera of Australian orchids are monotypic—that is, they have a single species representing the genus. In addition, depending on the nomenclature used, there are a number of genera created by the splitting of larger genera and while these are listed, they are not part of the main text given here as their status is still subject to review. The World Checklist (WCSP 2014) has been used to provide names of monotypic genera represented in the 'Australia' region.

No particular characteristic is distinctive of these genera as a group. There are species with narrow distributions, and others with wide distributions. Plants may be epiphytic or terrestrial, long lived or short-lived. Some have the ability to self pollinate, others are insect pollinated. All are threatened by various things.

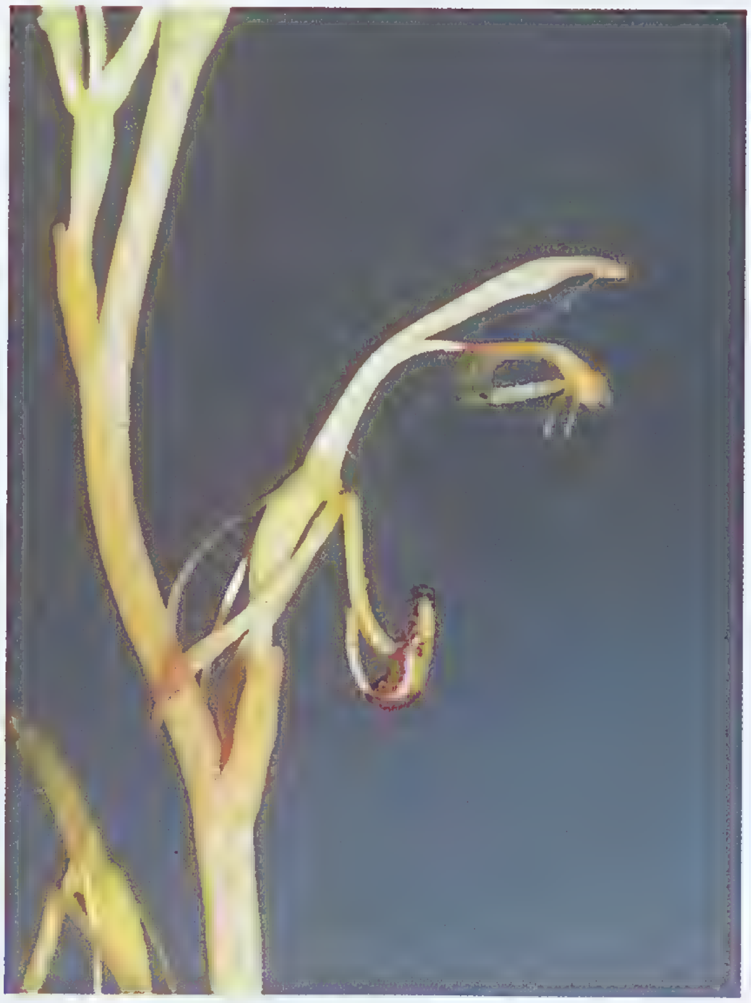
Monotypic genera restricted to Australia

Burnettia (*Burnettia cuneata*)

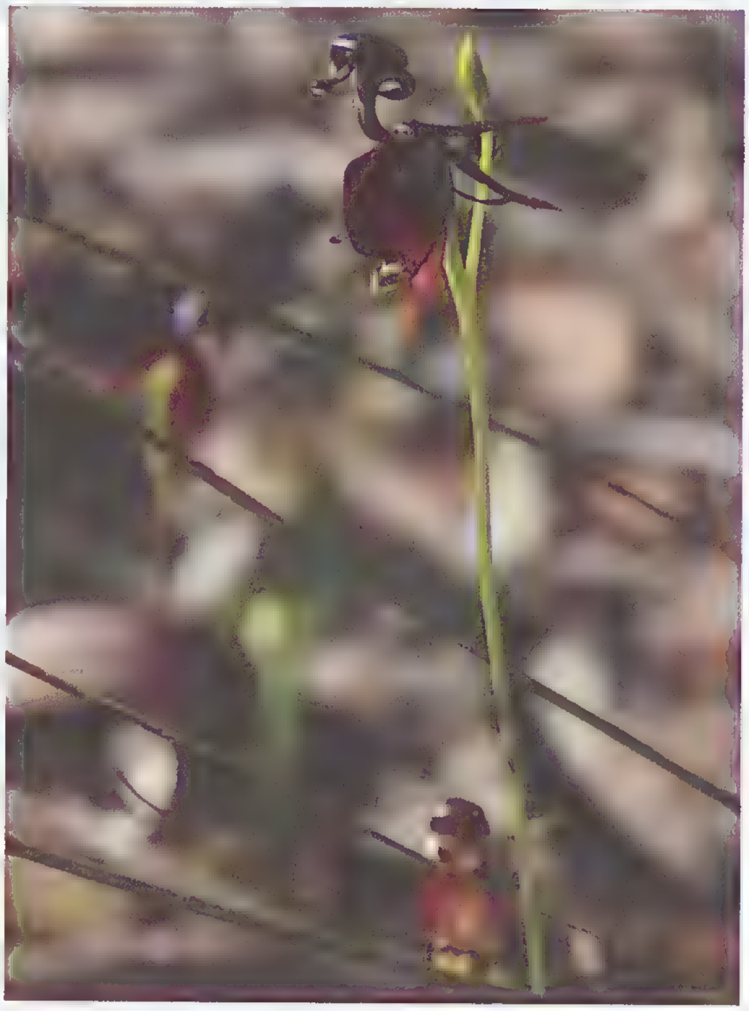
This species is found from the southern outskirts of Sydney to Victoria and Tasmania. The plants are highly localised, generally rare and seldom seen, but sometimes locally abundant, especially after fires. They are mainly found in dense shrubby swamps, and flower only after hot summer fires, it is presumed that the potash released after the fire promotes growth and flowering of the plant. While the flowers open widely only for 1—2 days they remain partly open for longer. It is believed that the plants die after flowering. Clearing of habitat, changes to fire regime and weeds are the main threats.

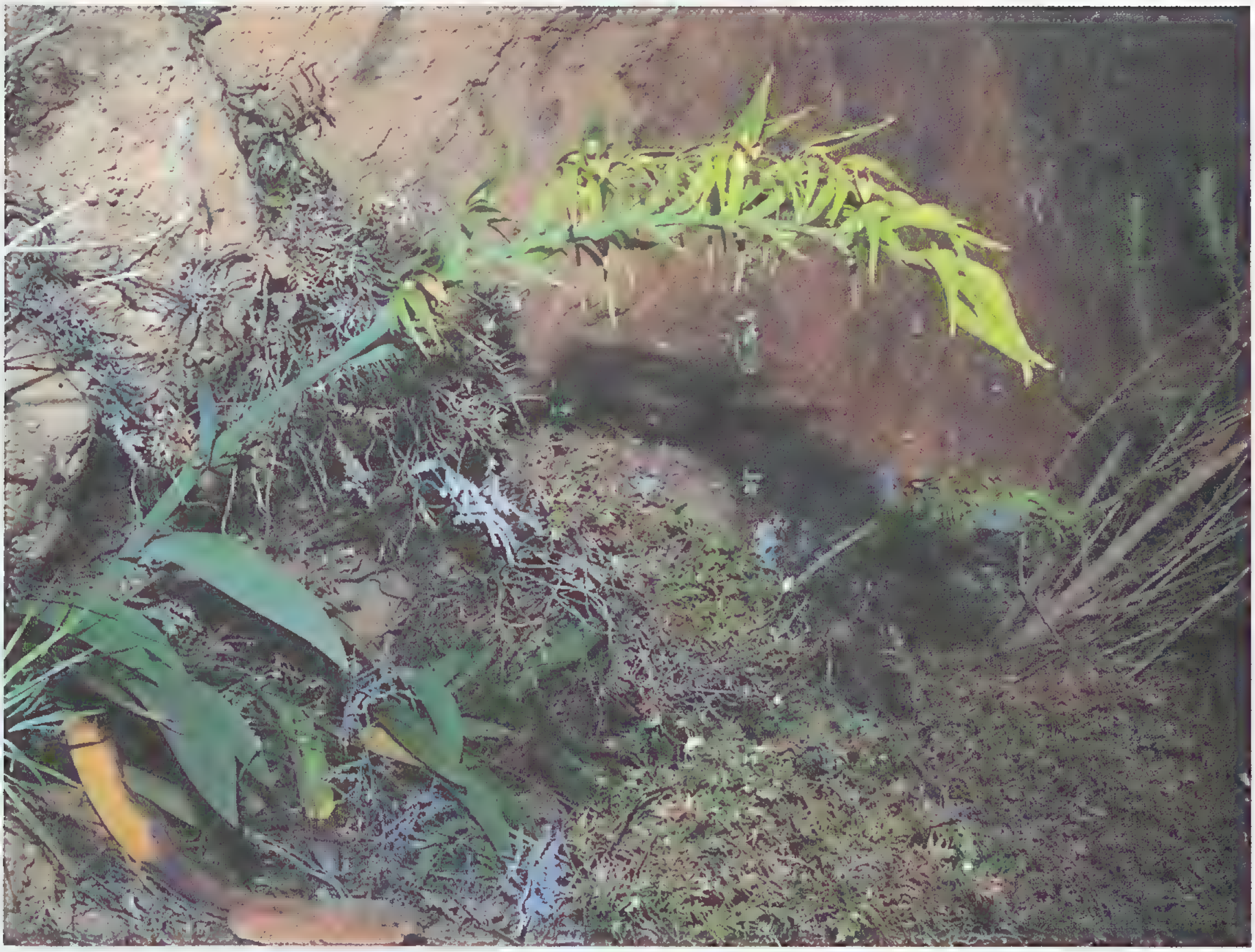
Spiculaea (*Spiculaea ciliata*)

Found in the granite areas of south-western Western Australia, Kalbarri to Esperance and west to the Darling Range. It favours shallow pockets of soil on rocks, and is noted as widespread and common. The fleshy flower stem has sufficient water and nutrients to allow the plant to mature the fruit even though the base of the stem will usually die off as the



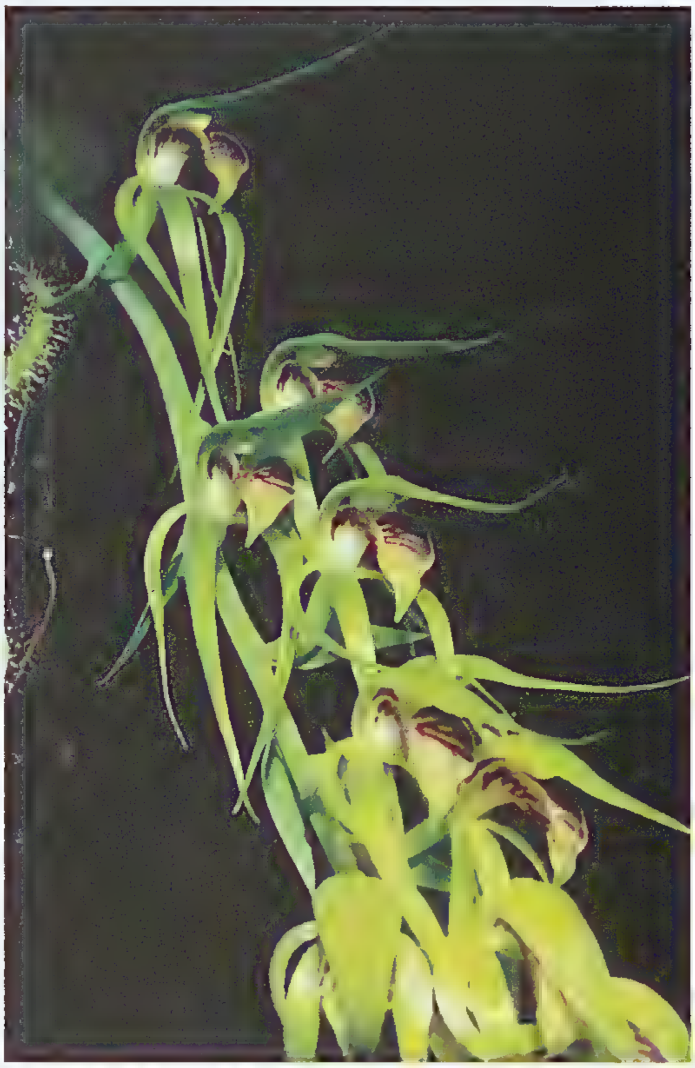
Spiculaea ciliata (above) and *Caleana major*.





Rimacola elliptica, plant and inflorescence, in wet crevices in the upper Blue Mountains.

flowers open. The labellum is insect-like and mobile, with the flowers being insect pollinated by a male wasp attempting to mate with the flower. Weeds, grazing and clearing are the main threats, with salinity and frequent fire also identified.



Rimacola (Rimacola ellipitica)

This species grows in rock crevices in sandstone areas around Sydney and onto the Central Coast. It usually is accompanied by ferns and herbs, and the crevices it favours are usually dripping with water at all times. The flowers are borne on an elongate raceme and remain open for a few weeks over an extended period throughout warmer months of the year. The foliage arises from an elongate rhizome, and persists for the whole year even though it is allied to many of the deciduous terrestrial genera. The threats include weeds, changes to hydrology and fire during drought, as well as disturbance and habitat loss.

Caleana (Caleana major)

The famous 'flying duck' orchid was originally grouped with several other species which have a warty surface on the labellum. These have been moved into the genus *Paracaleana* leaving the single species in the genus. It favours areas of sandy soil and extends from southeastern Queensland (Fraser Island) through eastern NSW to Victoria, Tasmania and south-eastern South Australia. The flowers are insect pollinated and the labellum is highly mobile, flicking into the column and taking about half an hour to reset on warm days. The species grows in colonies of a few to hundreds of individuals in heaths, dry open forests and heathy woodlands on sandy and sandstone soils. A solitary grey-green leaf with reddish patches and spots is at the base of the slender upright inflorescence that has one to three flowers. Main threats are habitat disturbance and destruction, weeds, inappropriate fire regime and grazing.

Epiblema (*Epiblema grandiflora*)

A terrestrial orchid with a single, erect, terete leaf arising from tubers and a tall raceme of up to 8 flowers that are not dissimilar to *Thelymitra* but have a less indistinct labellum that still looks petal-like but have a set of staminode-like structures at the base. It is very localised, in peaty swamps that are wet in winter among paperbarks and reeds between Esperance and Perth in southwest Western Australia. Flowering occurs at the end of the growing season in late spring and early summer. Threats are fire, habitat loss, changes to water flow and drought. Changes to rainfall patterns will also affect the plants.

Leporella (*Leporella fimbriata*)

One of the segregates from *Caladenia* this is a small terrestrial plant in woodland, open forests and coastal heathy scrubs from Southern Victoria, southeast South Australia and southern Western Australia. The plants are summer deciduous and favour these climates that have strongly seasonal rainfall patterns. The plants usually have a solitary, broad (oval) leaf, with reddish stripes, on or near the surface of the soil. The inflorescence is slender, up to 25 cm tall, with up to 3 yellow-greenish flowers with purple-red markings and erect petals. Flowers remain in apparently good condition for a long period, although they are only fertile for a short period. The main threats include grazing, fire, habitat loss and changes to rainfall patterns.

Leptoceras (*Leptoceras menziesii*)

Another of the *Caladenia* segregates—and often included into that genus—this is also a plant with a solitary, broad leaf held close to the soil surface like *Leporella*. Like that species it too has erect petals, but the flowers are white and red. Found from the southern edge of NSW across to southern Western Australia in heathlands, woodlands and dry forests. Flowers are usually solitary, rarely in pairs, on a slender stem and last for a couple of weeks. The main threats to the species are grazing, habitat loss, fire and changes to rainfall patterns.

Pheladenia (*Pheladenia deformis*)

This is a small, blue-flowered, terrestrial plant with a single, slender, green leaf and again similar to the related genus *Caladenia* with which it has been included. Flowers are solitary and held on a short stem just above the foliage. The labellum has a dense patch of papillose (not glandular) calli. Plants favour sandy soil sites in open forest, woodland, heathland and coastal scrub, from inland southern NSW across the southern states (including Tasmania) to south-west Western Australia. Main threats are habitat loss, grazing, changes to fire and rainfall regimes and weeds.

Ericksonella (*Ericksonella saccharata*)

A small terrestrial from the *Caladenia* group that has single flowers (rarely paired) on slender stems above the solitary, elongate leaf. The flower has a distinct pinch in the dorsal sepal and the backs of all the sepals have dark hairs. The favoured habitat is dense sheoak and shrubby woodlands, mallee and in shrubby heaths in inland Western Australia between Israelite Bay and Geraldton. Threats are likely to be similar to most terrestrials—habitat loss, dryland salinity, fire, weeds and grazing.

Praecoxanthus (*Praecoxanthus aphyllus*)

Found in the higher rainfall areas of southwestern Australia this is superficially similar to *Caladenia* but has the distinction of flowering early and not producing a leaf on the flowering plant. Non-flowering plants have a flat, single, roundly-oval leaf with a purple underside and green and white stripes on the upper side. These characters suggest it may be more closely related to South American genus *Codonorchis* (Hopper and Brown 1992). The solitary flower is green and looks like the Caladenias with short tepals. The labellum is pinched in the middle and bears a number of prominent glandular calli. Threats are likely to be clearing, fire (especially in the flowering season) and weeds.

Cooktownia (*Cooktownia robertsii*)

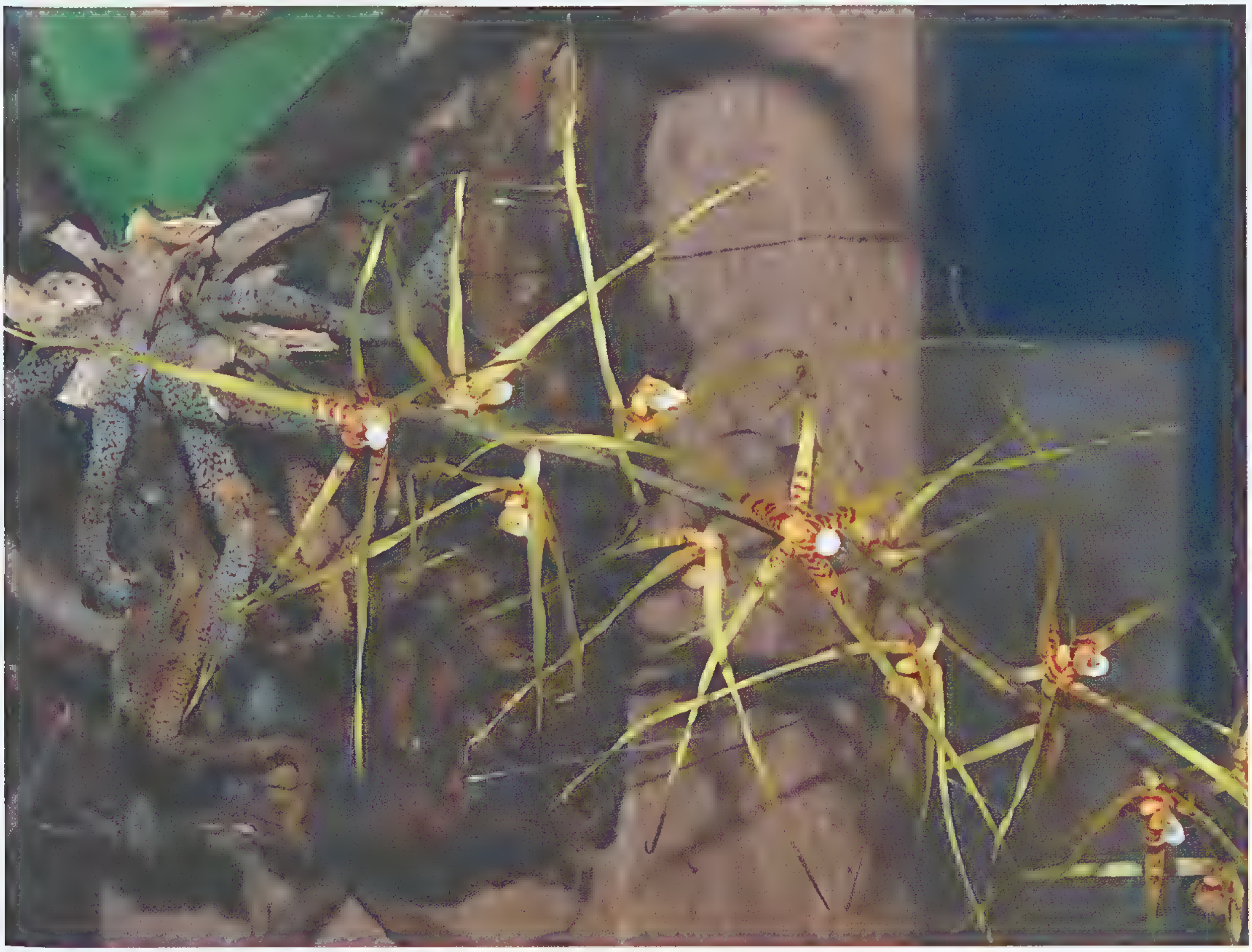
An odd species found (in good numbers) in a limited area just south of Cooktown in north Queensland. The species is a terrestrial with a pair of ground-hugging leaves and simple, green flowers with poor development of the sexual structures, although seed (or at least what looks like seed) is set freely as the flowers appear apomictic (). No immediate threats to the species are identified in available information.

Rhinerrhiza (*Rhinerrhiza divitiflora*)

Although it was originally described in the larger genus *Thrixspermum* this is one of the set of Australian monopodial orchids that has been placed into monotypic genera. The plant is a monopodial epiphyte with roughened, flat roots that provide the genus with its name and broad, leathery but thin (parchment-like) leaves. Flowers are spidery and 6 to 10cm across each, on an elongate raceme of 6 to 60, but each lasts one to three days only—good thing most of the inflorescence opens at once! It grows on trees in drier rainforests from the lower north coast of NSW (Hunter River) north to the Atherton Tablelands in north Queensland. Main threats are weed invasion, habitat loss, drought and fire in drought periods.

Peristeranthus (*Peristeranthus hillii*)

A medium-sized, monopodial plant with thickened, somewhat rigid leaves with



Rhinerrhiza divitiflora showing flowers and distinctive roots.

Peristeranthus hillii

prominent veins. Long racemes of small, brown flowers that last for a couple of weeks. Each flower is very small, only 5-7 millimetres across, but hundreds may be on the racemes. Pollination is by small beetles, attracted to the scent of the flowers that usually open at once on the plant. In the wild the plants are threatened by habitat loss, weeds, drought and fire in dry seasons that affect the dry and littoral rainforests the species prefers to inhabit. They occur from the mid north coast of NSW (about Port Macquarie) north to Cooktown in Queensland.

Mobilabium (*Mobilabium hamatum*)

A small to medium sized, monopodial plant with a distinctive hooked tip to the end of the leaf. Plants grow stoutly erect up the plant they are growing on. Mostly restricted to higher altitudes (more than 500 m) on the tablelands between Townsville and Cairns, in humid forests and exposed or well-lit situations in rainforests. Flowers open widely and are greenish with a narrow labellum with purple or reddish markings, or sometimes fully coloured. They stay open for about 2 weeks. The main threats are habitat loss, fires, weeds, and for those populations found at lower levels the loss of the frequent cloud cover as the base of the cloud layer will migrate uphill with a warming climate.

Papillilabium (*Papillilabium beckleri*)

Twig epiphytes in dry rainforests, scrubs and thickets along streams, in the coastal ranges and highlands from southeastern Queensland to just south of Sydney. The very small plants are monopodial with a short stem and crowded leaves, the whole rarely more than 5 cm across. The inflorescences bear up to 10 flowers in a distinctive helical arrangement along much of the length of the inflorescence. Flowers are cuppy but with narrow segments, about 7-8 mm across each and last about 2 weeks. The flower colour is basically green, with a dark purple-red U-shaped mark at the base of each segment and end tot he column (although the anther cap is pale). The labellum is very large for the scale of the flower, white with a prominent spur-pouch and greenish patches on the outer surfaces. Main threats to the species are fire, habitat loss, weeds and drought.

Mobilabium hamatum

Schistotylus (*Schistotylus purpuratus*)

Another dwarf monopodial twig epiphyte from highland areas between the Hunter Valley and the NSW—Queensland border, with reports of it occurring north of the border supported by only one specimen from literally just over the border. Plants are very small when they begin flowering and may rarely exceed 5 cm across when as large as they get. Stems are typically short, giving the plant a tufted appearance. The inflorescence bears up to 10 small (5-7 mm) flowers in a loose cluster at the end of the raceme, unlike the otherwise similar plants *Papillilabium beckleri* and *Plectorrhiza tridentata*. Flowers last up to about 2 weeks, and are mainly purplish with a prominent whitish labellum. The main habitat is fine branches overhanging watercourses and damp sites, particularly in tea tree (*Leptospermum*) although some say they also occur on

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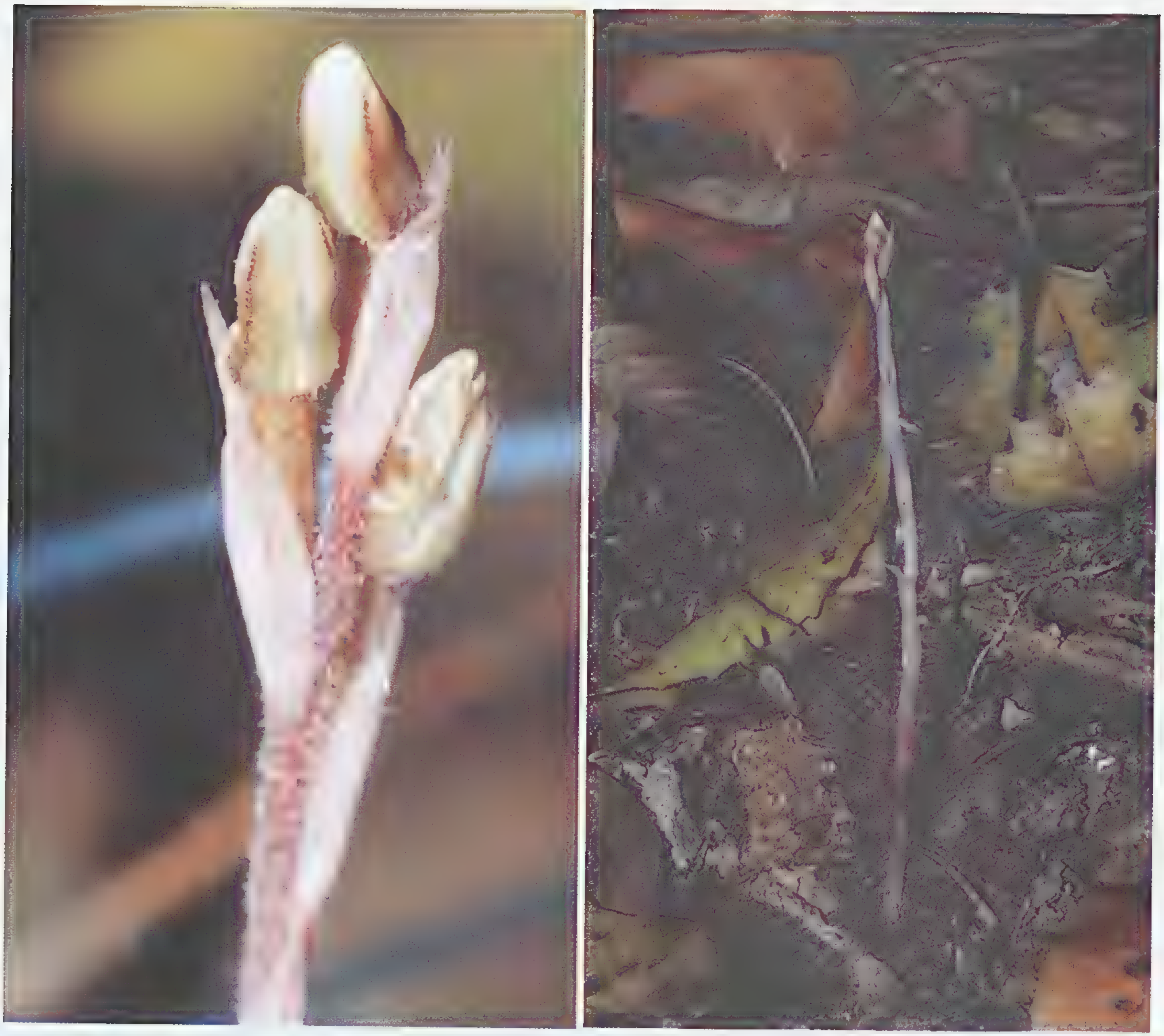
Papillilabium beckleri



Danhatchia australis from the NSW Southern Highlands site.

Nothofagus. The main threats to the species are fire, clearing of habitat, drought and weeds.

Monotypic genera occurring in Australia and elsewhere

Danhatchia (*Danhatchia australis*)

Only recently found in Australia in two widely separated sites in NSW. A slender, leafless plant with a short stem bearing a few, small, poorly opening flowers in grey-brown colours. So far only known from rainforest habitats in Australia, it is more widely known, and considered threatened, in New Zealand (from where it was first discovered). The plant is very cryptic and may be more widely distributed. Threats include fire, habitat loss, weeds and changes to rainfall patterns.

Non-monotypic with a single Australian species

The following list is of genera considered to have a single Australian member despite more species being found elsewhere.

Adenochilus (*A. nortonii*)
Anoectochilus (*A. yatesiae*)
Apostasia (*A. wallichii*)
Bromheadia (*B. pulchra*)
Calanthe (*C. triplicata*)
Chiloschista (*C. phyllorhiza*)
Corymborkis (*C. veratrifolia*)
Dienia (*D. ophrydis*)
Drymoanthus (*D. minutus*)
Epipogium (*E. roseum*)
Erythrorchis (*E. cassythoides*)
Geodorum (*G. densiflorum*)
Hetaeria (*H. oblongifolia*)

Luisia (*L. tristis*)
Micropera (*M. fasciculata*)
Microtatorchis (*M. clementsii*)
Octarrhena (*O. pusilla*)
Orthoceras (*O. strictum*)
Pachystoma (*P. pubescens*)
Phalaenopsis (*P. amabilis*)
Pholidota (*P. imbricata*)
Podochilus (*P. australiensis*)
Pseudovanilla (*P. foliata*)
Rhomboda (*R. polygonoides*)
Tainia (*T. trinervis*)
Thelasis (*T. carinata*)
Townsonia (*T. viridis*)
Trichoglottis (*T. australiensis*)
Tuberolabium (*T. stellatum*)
Vanda (*V. hindsii*)
Zeuxine (*Z. oblonga*)

References used

Clements MA (1989) Catalogue of Australian Orchidaceae. *Australian Orchid Research* **1**: 1-160.

Dawson J, Lucas R (2000) *Nature Guide to the New Zealand Forest*. Godwit, Auckland.

Dockrill AW (1992) *Australian Indigenous Orchids* Volumes 1 & 2, Second edition. Surrey Beatty and Sons, Sydney

Hoffman N, Brown AP (1992) *Orchids of South-west Australia* (2nd edition) University of Western Australia Press.

The International Plant Names Index (2012). Published on the Internet http://www.ipni.org

Jones DL (1991) New Taxa of Australian Orchidaceae. *Australian Orchid Research* **2**: 1-208.

Jones DL (1993) *Native Orchids of Australia*. Reed, Sydney.

Royal Botanic Gardens and Domain Trust (2014) *Plantnet: NSW Flora Online*. Accessed at http://plantnet.rbgsyd.nsw.gov.au/

Wapstra M, Wapstra A and Wapstra H (2010) *Tasmanian Plant Names Unravelled*. Fullers Bookshop, Launceston.

WCSP (2014). *World Checklist of Selected Plant Families*. Facilitated by the Royal Botanic Gardens, Kew. Published on the Internet; http://apps.kew.org/wcsp/ Retrieved 23rd August 2014.

Western Australian Herbarium (2014) *FloraBase: the Western Australian Flora*. Accessed online at https://florabase.dpaw.wa.gov.au/

Dendrobium Avril's Gold—Award Benchmarks

Text by John Klepetko (joihn.klepetko@uni.sydney.edu.au), photos by Jorn Villien

The following information was compiled from information freely available on the Australian Orchid Council (AOC) and ANOS websites. I was prompted to collate it after seeing a range of clones of *Dendrobium* Avril's Gold exhibited at this year's Tinonee Orchid Nursery Open Day, including the clones 'Ray' and 'Jarrah'. I wondered what the ideal Avril's Gold would be, based on the benchmarks set by previously awarded plants.

Table 1 includes the award number, name, type and score, and exhibitor for the awarded Avril's Gold clone. Also provided is a summary of the measurements of the awarded plants for some of the floral attributes which are considered useful in the recording of awarded plants.

The list contains clones of *Dendrobium* Avril's Gold that have been awarded by the AOC up to 2014. A total of 18 individual clones of Avril's Gold have been awarded. Two of these clones, 'Florafest' HCC/AOC (1998) and 'Kerry's Delight' AM/AOC (1998) appear twice in the list as they both obtained an award of distinction, in addition to the initial quality award. 'Jamie' also appears twice as it received an AM in 2012 following its HCC in 2009.

Avril's Gold 'Wingham' was also awarded an

HCC (78.9%) by ANOS NSW in 2003 at the same time it was awarded by the AOC. This has been highlighted in green in the table

The clone 'Highclere' AM/AOC-Vic (2008) is a standout for number of flowers per raceme (66) and overall length and width, and dorsal sepal and petal lengths.

Based on the measurements taken from the AOC and ANOS awarded plants, the current upper benchmark for Avril's Gold consists of racemes with stems 400 mm long and containing 66 flowers. The maximum floral measurements in the awarded Avril's Gold include a flower 85 mm long, 75 mm wide, petals 40 mm long, dorsal sepal 50 mm long, and a labellum 21 mm long.

Den. Avril's Gold 'Jamie'

Den Avrils Gold 'Zac'

Den. Avril's Gold 'Dusty'

Table 1. Comparison of statistics of the floral and display characteristics of the awarded plants of *Dendrobium* Avril's Gold.

AOC Award #	Avril's Gold	Award type	Exhibitor	Flower Length (mm)	Flower Width (mm)	Petals (mm)	Dorsal sepal (mm)	Ventral (lateral) sepals (mm)	Labellum (mm)	# flowers total	max # flowers/raceme	# inflorences	Stem length (mm)
4809	'Mitchell'	AM/AOC 2013 (NSW) 82	Van Den Berg H.	74	52.5	32.5	37	27	17	98	25	4	330
4685	'Jamie'	AM/AOC 2012 (NSW) 82	Gibson P.	77	54	37	43	35	19	108	32	4	373
4414	'Zac'	AM/AOC 2011 (NSW) 83	Beatton G.	63	42	30	36	32	17	68	38	2	320
4409	'KH'	AM/AOC 2011 (NSW) 80	Wood D.	7?	49	27	38	33	17	54	30	2	175
4362	'Nutmeg'	AM/AOC 2011 (QLD) 80	Harvey R. & R.	62	55	30	38	28	18	**180**	30	**6**	190
4335	'Calderpark'	HCC/AOC 2011 (VIC) 77.6	Drobski M.	68	57	31	38	26	12	77	24	4	380
4228	'Oscar'	AM/AOC 2010 (NSW) 81	Van Den Berg H.	59	45	29	36	33	20	184	29	8	270
4066	'Jamie'	HCC/AOC 2009 (NSW) 79	Gibson P.	68	58	30	38	32	15	92	23	5	280
4063	'Pure Gold'	HCC/AOC 2009 (NSW) 79	Butler D.	57	43	33	35	28	14	24	24	1	240
3787	'Highclere'	AM/AOC 2008 (VIC) 80.6	Garrett G.	**85**	**75**	**40**	**50**	33	10	66	**66**	1	NP
3592	'Gosford Gold'	HCC/AOC 2006 (NSW) 79.3	DUNO	45	34	22	28	27	15	69	12	6	NP
3189	'Wingham'	AM/AOC 2003 (NSW) 81.7	Cruickshanks D.	74	49	35	42	34	12	51	28	2	275
3081	'Plenty'	HCC/AOC 2003 (NSW) 79	DUNO	18?	58	36	42	30	13	12	12	1	190
3002	'Brandon'	AM/AOC 2002 (VIC) 81.8	Drobski M.	60	44	35	35	26	18	22	14	2	210
2871	'Christine'	HCC/AOC 2001 (NSW) 78.8	Beatton G.	70	33	33	40	35	13	37	37	1	**400**
2671	'Ray'	HCC/AOC 2000 (VIC) 77.3	Van Den Berg H.	80	51	33	41	30	15	21	12	2	320
2603	'Dusty'	HCC/AOC 2000 (NSW) 78.5	DUNO	74	46	33	38	32	16	33	17	2	69?
2559	'Kerry's Delight'	AD/AOC 2000 (QLD) 79	Martin M. & K.	76	56	32	40	**40**	11	14	14	1	280
2365	'Kerry's Delight'	AM/AOC 1999 (QLD) 80	Martin M. & K.	81	61	38	48	**40**	15	NP	NP	NP	NP
2239	'Florafest'	AD/AOC 1998 (QLD) 79	Florafest Orchids	73	55	38	47	31	**21**	16	16	1	250
2238	'Florafest'	HCC/AOC 1998 (QLD) 79	Florafest Orchids	73	55	38	47	31	**21**	16	16	1	250
	Maximum			**85**	**75**	**40**	**50**	**40**	**21**	**184**	**66**	**8**	**400**
	Minimum			**45**	**33**	**22**	**28**	**26**	**10**	**12**	**12**	**1**	**175**
? = likely to be incorrect, NP = not provided			**Average (All Plants)**	**69**	**51**	**33**	**40**	**32**	**16**	**62**	**25**	**3**	**278**

Pterostylis simulans (Orchidaceae), a new boom or bust species of rusty hood from northern South Australia

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Abstract: *Pterostylis simulans* belongs to a large group of Australian dry-land *Pterostylis* species known as rusty hoods, Jones 2006. It is a member of the *P. excelsa* M.A. Clem. group of species (designated here) mostly restricted to South Australia, and is here described as new.

Key words *Orchidaceae*, *Pterostylis* R.Br., *Oligochaetochilus* Szlach., rusty hoods, *Pterostylis simulans*, Flinders Ranges, South Australia, Australian orchid flora.

Introduction: the genus *Pterostylis* R.Br. contains about 200 species of orchid known collectively as green hoods, Jones 2006. It extends from New Zealand and Oceania through much of Australia into New Guinea and the eastern Moluccas. The new species *P. simulans* belongs to a subgenus which had been elevated to generic rank as *Oligochaetochilus.* Szlach. 2001 (rusty hoods) with an estimated 80 species, all restricted to Australia, mostly on the temperate mainland, with potentially many of them undescribed.

At the close of the 20th century less than half of the rusty hoods in South Australia had been named and described (Bates 2002). Since then D.L. Jones has named an additional five South Australian species, Jones 2007, 2009 as *Oligochaetochilus*, i.e. *O. exallus, O. ferrugineus, O. lepidus, O. mirabilis* and *O. psammophilus,* none of which belong to the group of species including *P. simulans.*

All five above are from the southeast of the state despite the fact that rusty hood diversity is greatest in the north and west of SA. I have published the new species here as *Pterostylis* so that it might gain immediate acceptance.

Bates (2013) identifies no less than twenty undescribed rusty hoods from SA under manuscript or tag names.

Materials and methods: The description of the new species was made from fresh material, while collections of this and related species, including types were examined at AD. Material of similar species with tag names was also examined and compared with *P. simulans.*

In the central and northern Flinders Ranges the winter of 2013 was quite wet, (pers. obs. and BoM data,) with normally dry creeks overflowing and water holes full for the first time in a decade. The Native Orchid Society of South Australia mounted expeditions to the area in August and early September 2013 specifically to photograph and collect orchids which had not been seen during the preceding decade of drought.

In the dry woodland areas from Parachilna to Moolooloo via Parachilna Gorge there were huge populations of an obviously undescribed rusty hood. Collections and images were made in preparation for publishing.

Taxonomy*: Pterostylis simulans* R. J. Bates *sp. nov.* has affinities with *P. excelsa* M.A Clem. from Eyre Peninsula SA but differs in its earlier flowering, smaller plant size, (to 20cm tall) different habitat and range and with smaller differently coloured flowers to 15 mm wide, having longer, (to 16mm) peduncles, narrower, more delicate flowers and thicker labellum. It differs from the tag named *Pterostylis* sp. Gammon Range (R. Bates 3495) in its much smaller size and slender_labellum and from the tag named *P.* sp. 'Arkaroola' (R Bates *s.n.* AD 159960) in its different flower colour and shape and longer, narrower labellum.

Description: plants 10-20 cm tall; Leaf rosette 30-50 mm across, clumping and sub-erect or single and flat on the ground; Leaves four to eight, overlapping, often glossy, ovate-lanceolate to 30 mm long x 15 mm wide, margins entire or with a few bristles; Scape

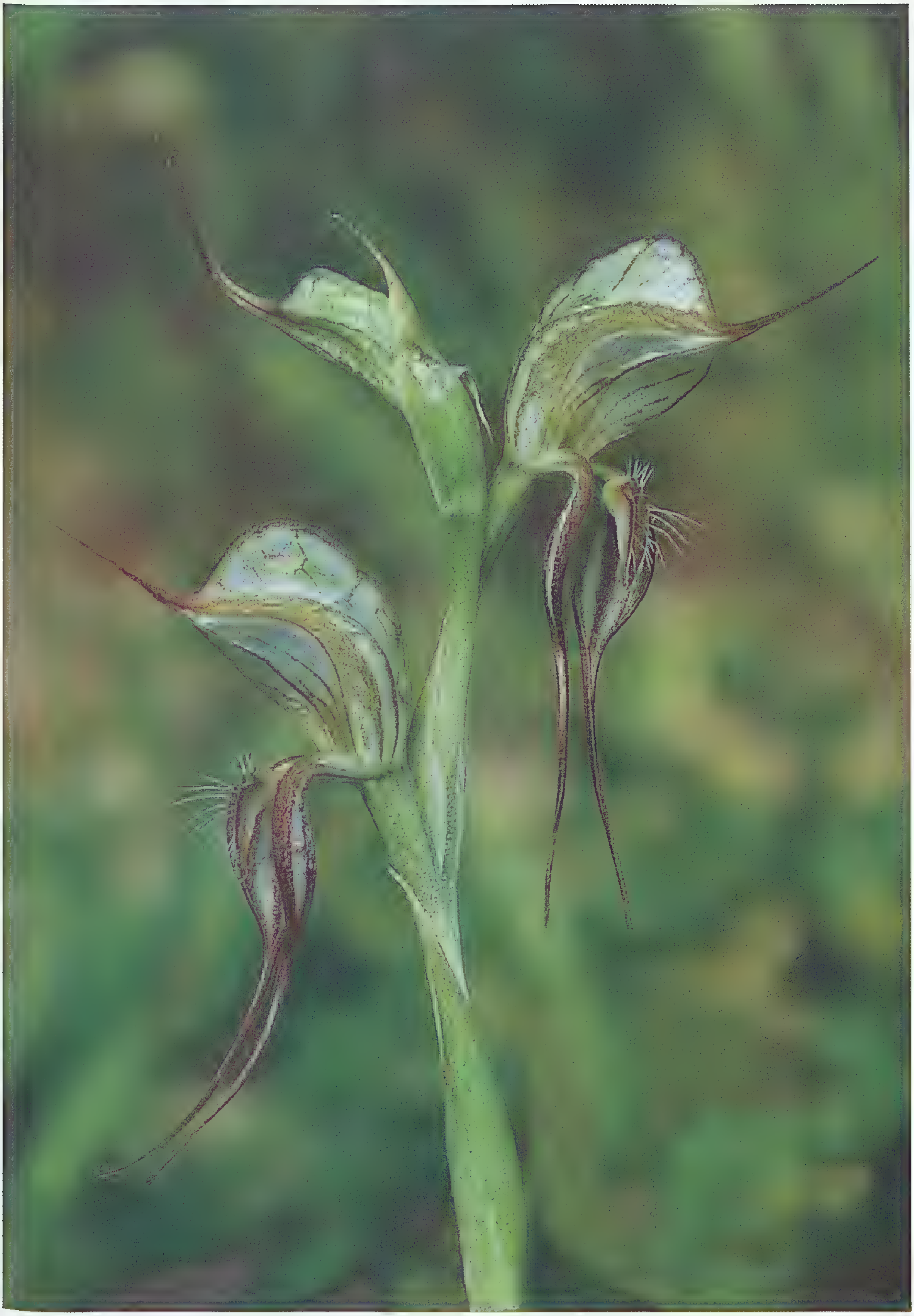
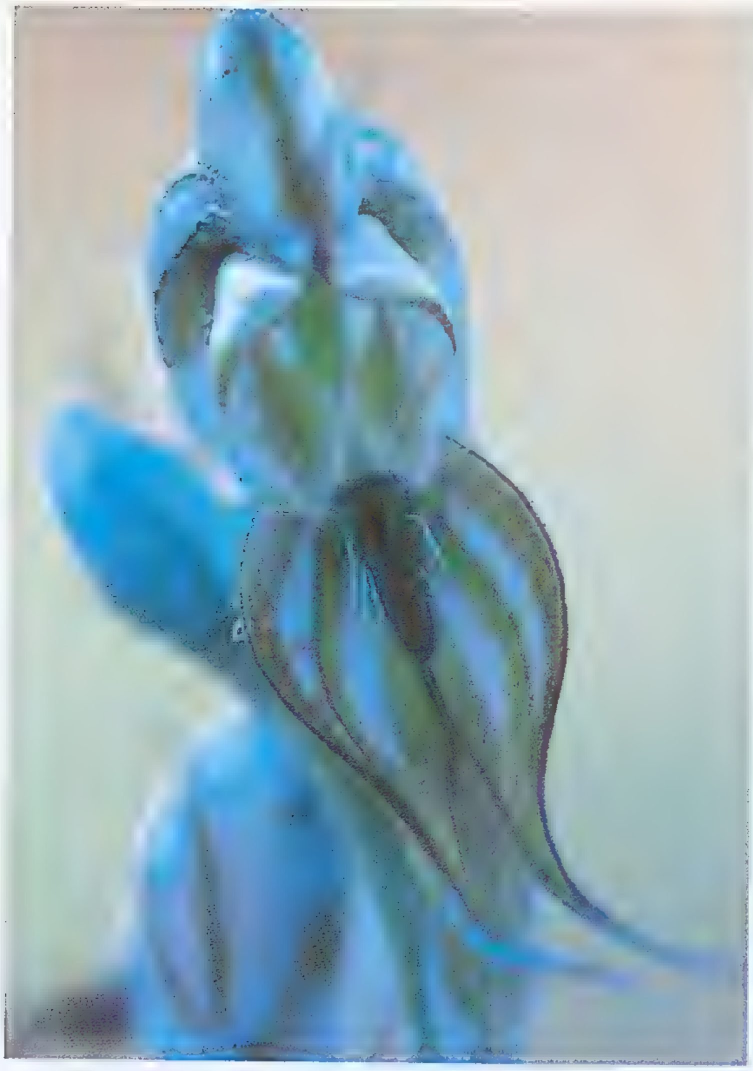


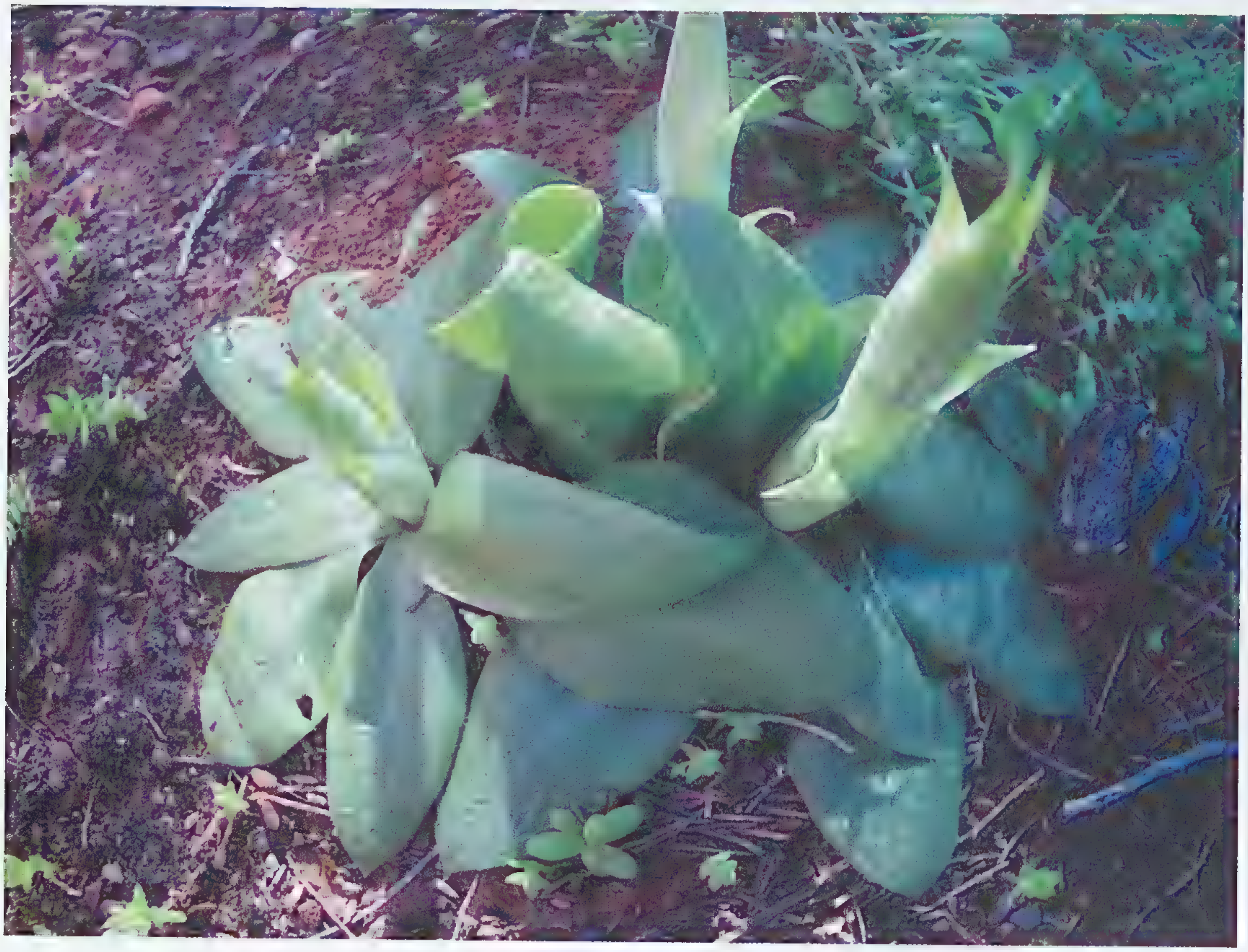
Plate 1. *Pterostylis simulans* showing two flowers one side one front. Photograph by Barb Bayley.



short, usually less than 150 mm tall but stocky, lowest flower 30-50 mm from soil level, sterile bracts two or three, to 10 mm long by 5 mm wide , clasping the scape; Flowers one to ten, nodding, on slender peduncles to 16 mm which are free or hidden within a swollen floral bract up to 15 mm long, individual flowers with galea 10-15 mm long, with brown and green striations or veining on a white background, free point of dorsal sepal filiform, to 10 mm long, straight or upturned, petals as long as and adpressed to the galea, narrow, mostly transparent with fine darker striations and dark margins, lateral sepals narrowly ovate, conjoined for up to 10 mm from the base with similar colours to galea, broadest near the middle, margins with a few short setae, free points diverging, pendulous, to 18 mm long; Labellum (plate 2), 4-5 mm long on a slender mobile claw, wedge shaped, pale brown or

Plate 2 (left). *P. simulans* labellum, photograph by June Niejalke.

Plate 3 (below) *P. simulans* rosette cluster. Photograph by R. Bates.



green, thick, acute to subacute, basal mound beset with a crest of fine hairs to 2 mm long, margins with a few variable setae 2 -3 mm long, angled forwards, labellum lamina with a deep longitudinal groove or pit; Column slender, about as long as galea and fully within it, stigma narrow ovate, acute with a median groove, column wings small each with a cluster of short cilia on lower margins, seed capsule rapidly swelling after fertilisation.

Type: South Australia, Northern Flinders Ranges, Angorichina Creek via Parachilna Gorge, 5th September 2013, *R Bates 90739* (holo AD).

Distribution and ecology: found well inland in the central and northern Flinders Ranges of South Australia from near Hawker, in the south to perhaps as far north as Arkaroola, occuring mostly in fertile red or purple red loams under native pines *Callitris* spp. and large eucalypts along major ephemeral water courses but also on the rocky sides of gorges. *P. simulans* is mostly replaced by other species of rusty hood in the higher parts of the ranges although a few plants have been found near Wilpena Pound. The species appears in numbers only in seasons following heavy winter rains, a boom or bust strategy used by most orchids on the desert fringes of South Australia.

P. simulans is a very fertile species producing up to six seed capsules per plant compared to few or none for most other rusty hoods in the area, indicating good populations of its specific pollinating gnat.

Recognition*:* see also key below:

The new species is characterised by its neat rosette of smooth, overlapping, lanceolate leaves without strong veins and by its comparatively small flowers on short scapes (to 20 cm, other indicators include the early flowering and the high proportion of seed capsules on any scape. The flowers have varied colours and a small acute labellum. The habitat preference and northern distribution separate it from the many other rusty hoods in the Flinders Ranges.

Key ***to*** the *Pterostylis excelsa* complex in SA , which does not include any of Jones (2006, 2009) species:

1a Plains species not in the northern Flinders Ranges, leaf rosette large and fleshy, to 80 mm wide heavily veined, flowering October-November, scape mostly 25-50 cm tall rarely 80 cm, flowers large and fleshy, deep red-brown to purplish, galea 20-30 mm long *P. excelsa* (Plate 4)

1b Distribution including the Flinders Ranges, leaf rosette variable but never fleshy or strongly veined, flowering August-September, scape 10-20 cm tall, flowers thin textured, mostly green or brown and white, galea 10-15 mm long 2

2a Restricted to the north Flinders Ranges of SA, leaf rosette mostly about 40 mm across, leaves ovate-lanceolate, acute, flowers mostly about 12 mm across on long peduncles, lateral sepals widest toward the middle *P. simulans*

2b In the eastern foothills of the Flinders Ranges across to the Olary Ranges and into western NSW, rosettes less than 40 mm across, leaves ovate, obtuse, flowers mostly 8-10 mm across on short peduncles, lateral sepals widest near the base *P cobarensis* group.

Flowering period: flowering of *Pterostylis simulans* has been observed from August through September, rarely as late as October at high altitudes.

Notes: names which may have been incorrectly applied to plants of *P. simulans* include *Pterostylis excelsa auctt. non* M.A. Clem. and *P. cobarensis* M.A. Clem. *Oligochaetochilus* sp 'Long peduncles' (R. Bates, 2008) from near Wilpena is an extreme form.

Other excluded names include *Oligochaetochilus* sp. 'magnus' D.L Jones *ms* (O. sp Gammon Range, (R. Bates 2008) and *Oligochaetochilus* sp. Arkaroola (R Bates 2008) which remain undescribed.

Additional collections examined at AD, from the Central and Northern Flinders Ranges in SA:

Moolooloo Station, Sept 8th 2013, R *Bates 90000*; Parachilna Gorge, along creeks flowing into gorge, Sept 2013, *R. Bates 90831*; 3km south of Wilpena turnoff on rocky hill, Sept 1996, *R. Bates s.n.* (previously determined as O. or P. sp. Long peduncles; Another collection from the Freeling Heights summit cairn at 944 metres on flat ground between outcrops of shattered quartzite, Sept 1993, *Lorraine Edmunds s.n.* could be this species.

Conservation status not rated. *Pterostylis simulans* is a common species in the Northern Flinders Ranges and is of least concern.

Etymology: after the Latin *simulans* resembling or similar to others, suggesting its similarity to the much taller *Pterostylis excelsa* from the plains well south and west of the Flinders Ranges and the much more delicate *P. cobarensis* from eastern foothills of the main Ranges.

Images:

Plate 1 shows a flower spike of *P simulans* imaged by Barbara Bayley, plate 2 has an image of a labellum close –up by June Niejalke from a location near Parachilna and plate 3 shows a cluster of plants from the type locality by R Bates. No previously published images of *P. simulans* are known. Plate 4 shows a flower of *P. excelsa* for comparison. Plate 5 shows more *P. simulans* flowers.

Acknowledgements: thanks are due to the many NOSSA members who assisted in imaging, illustrating and collecting the species, especially Barb and Ken Bayley with June Niejalke. Staff at the Adelaide Herbarium (AD) made collections of *Pterostylis* species available for examination and David Jones encouraged me to collect and study the genus in SA.

Publications cited:

Bates RJ (2002) The Rufa group *Pterostylis* of South Australia. *The Orchadian* **13**(12): 550-555.

Bates RJ (2008 -2013) *Orchids of South Australia*. Electronic versions 6-10. Native Orchid Society of South Australia.

Bates RJ, Weber JZ (1990) *Orchids of South Australia*, Government Printer, Adelaide.

Jeanes J, Backhouse G (2006) *Wild Orchids of Victoria Australia*, Aquatic Photo Graphics, Seaford Australia

Jones DL (2006) *A Complete Guide to Native Orchids of Australia*, Reed New Holland, NSW.

Jones DL (2007) Two new species of *Oligochaetochilus* (Orchidaceae) from South Australia. *The Orchadian* **15**(9): 394-399.

Jones DL (2009*)* Three new species of *Oligochaetochilus* (Orchidaceae) from South Australia. *The Orchadian* **16**(3): 119-123.

Szlachetko D (2001) Genera et species Orchidalium. *Polish Botanical Journal* **46**: 11-26.

This article has been peer reviewed: Received 4th March 2014, accepted for publication 22nd August 2014.

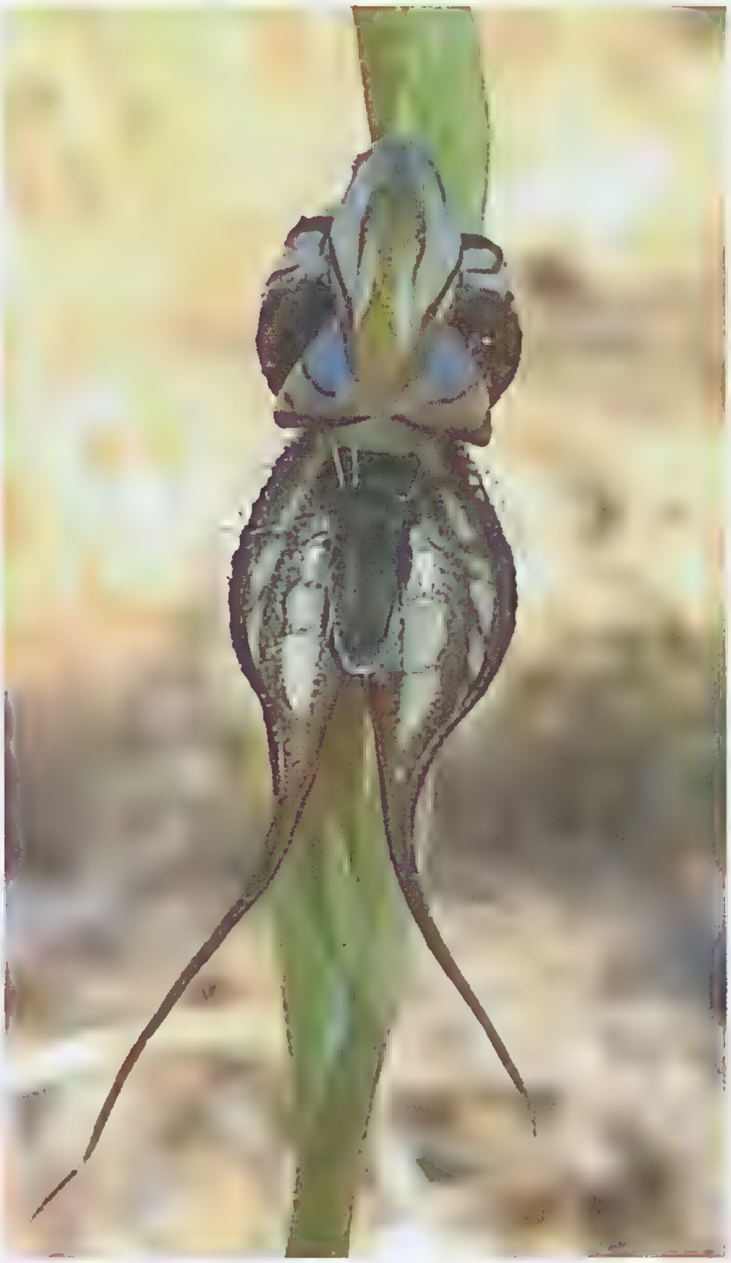
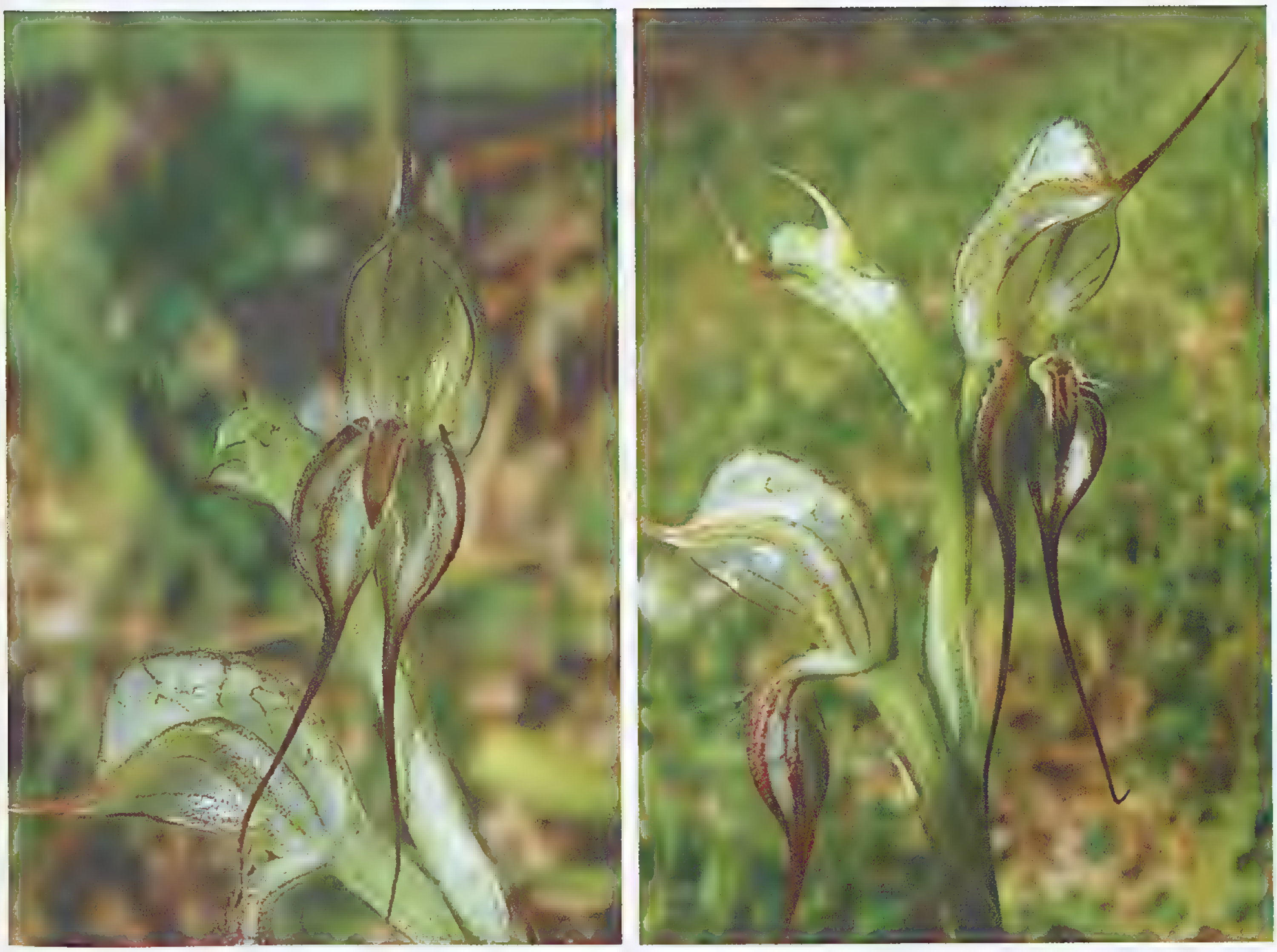
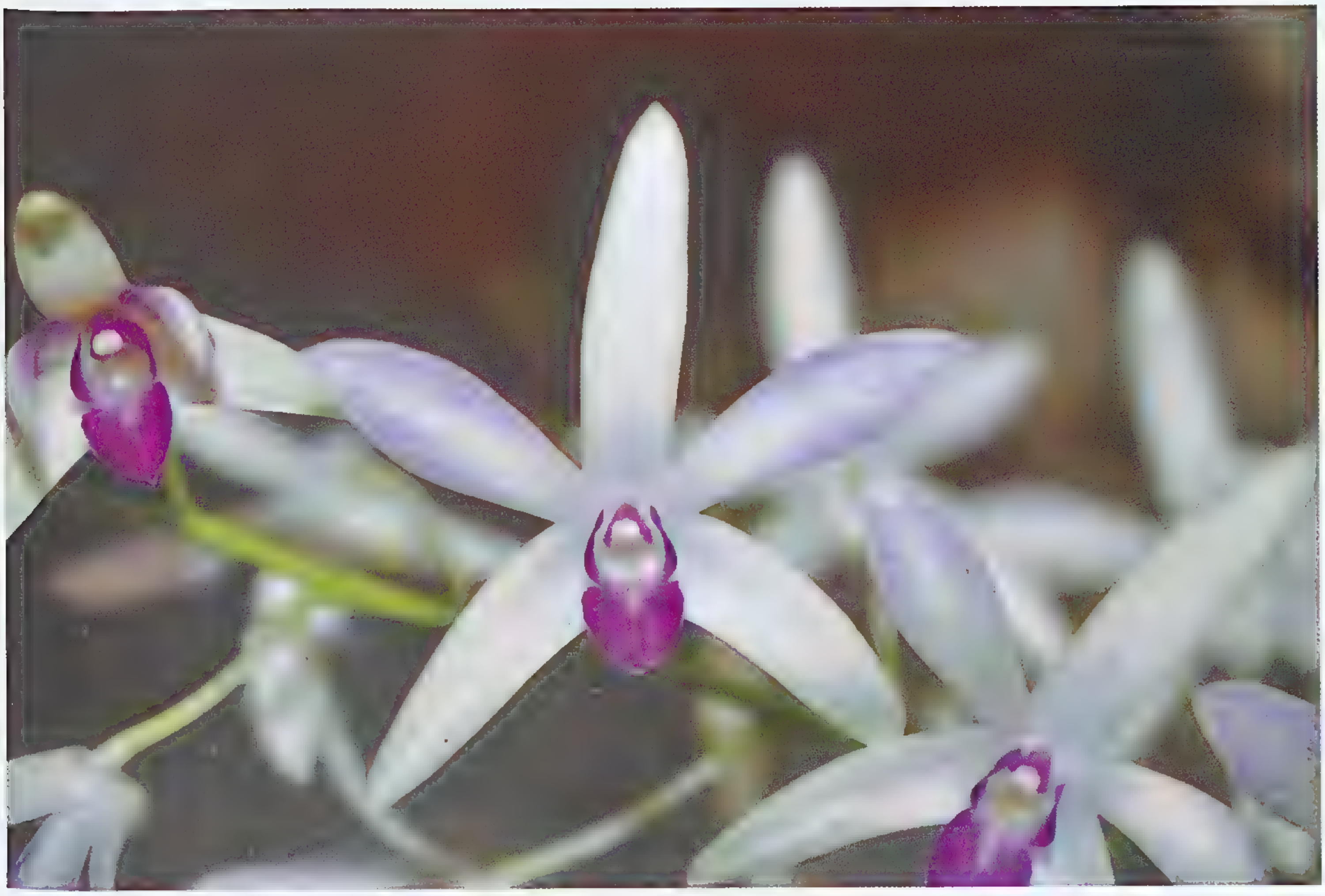


Plate 4. *Pterostylis excelsa* flower for comparison. Photograph by Robert Bates



Pterostylis simulans flowers. Photographs by Barb Bayley.

Dendrobium Warringah 'Purple Heaven' AM/ANOS. Photograph by Robert Bird.



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The Nationally Vulnerable spiral Sun-orchid *Thelymitra matthewsii*	Noushka Reiter	26
The Nationally Vulnerable Elegant Spider-orchid *Caladenia formosa*	Noushka Reiter	27
Spiculaea ciliata	Greg Steenbeeke	28
Caleana major	Greg Steenbeeke	28
Rimacola elliptica plant and inflorescence	Greg Steenbeeke	29
Rhinerrhiza divitiflora flowers and distinctive roots	Greg Steenbeeke	31
Peristeranthus hillii	Greg Steenbeeke	32
Mobilabium hamatum	Greg Steenbeeke	32
Papillilabium beckleri	Greg Steenbeeke	33
Danhatchia australis from the Southern Highlands site	Greg Steenbeeke	34
Dendrobium Avril's Gold 'Jamie'	Jorn Villien	36
Dendrobium Avril's Gold 'Zac'	Jorn Villien	36
Dendrobium Avril's Gold 'Dusty'	Jorn Villien	36
Plate 1. *Pterostylis simulans* showing two flowers	Barb Bayley	39
Plate 2. *Pterostylis simulans* labellum	June Niejalke	40
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Pterostylis simulans flowers	Barb Bayley	43
Dendrobium Warringah 'Purple Heaven' AM/ANOS	Robert Bird	43
Dendrobium Midas Touch	David Butler	Back Cover
Dendrobium Avril's Gold 'Wingham'	Jorn Villien	Back Cover

Assist with Research!

I am participating in a review of the genetics of the plumose *Pterostylis* species ('Plumatichilos') as a review of the species in that group which occurs in Sydney. I am looking for material for genetic analysis (leaf samples especially), with location details (preferably from GIS but as best as possible will be acceptable) for any of the other species and 'entities' in that group to get a good handle on the distinctiveness of the entity in Sydney. Good photographs of plants, flower side and front for any material you can supply would also be appreciated. Contact me before collecting or sending.

Further information about the project, which is being undertaken as part of the *Saving Our Species* program in NSW, can be obtained from myself as project officer or through .the website at threatenedspecies.environment.nsw.gov.au.

Thanks for any assistance you can provide.

Greg Steenbeeke
greg.steenbeeke@environment.nsw.gov.au

Shows - Events - Advices

All dates 2014 unless noted—States are colour coded: QLD, NSW, VIC

ANOS Mid North Coast Show
Includes the Speciosum Spectacular
Saturday—Sunday 6-7th September
57 Spooners Avenue
Greenhill via Kempsey

ANOS Sydney Spring Show
Saturday—Sunday 13-14th September
Pandorea Room
Eden Gardens Nursery
301-307 Lane Cove Road, North Ryde

ANOS Warringah Spring Show
Saturday—Sunday 13-14th September
Forestville Memorial Hall
Starkey Street, Forestville

ANOS Illawarra Spring Show
Saturday—Sunday 13-14th September
Old Court House
Cliff Road, Wollongong

ANOS Macarthur Spring Show
Saturday 20th September
Narellan Town Centre (outside Coles)
Camden Valley Way, Narellan

ANOS Melbourne Suburbs Group Spring Show
Saturday 4th October
Lilydale Lake Community Room
435 Swanvale Road, Lilydale

ANOS Central Coast Sarcochilus Show
Saturday—Sunday 11th-12th October
Penrose nursery and Aquarium
224 The Entrance Road (cnr. Penrose St), Erina

ANOS Newcastle Sarcochilus Show
Saturday—Sunday 18-19th October
The Adamstown Club
282 Brunker Road, Adamstown

ANOS Illawarra Sarcochilus Show
Saturday—Sunday 18-19th October
Old Court House
Cliff Road, Wollongong

ANOS Sydney Sarcochilus Show
Saturday 18th October
Community Church
41-43 Eaton Road, Pennant Hills

ANOS Macarthur Late Spring Show
Saturday 25th October
Narellan Town Centre (outside Coles)
Camden Valley Way, Narellan

ANOS Melbourne Suburbs Gp Late Spring Show
Saturday 25th October
Montrose Primary School
Leith Road, Montrose

AUSTRALASIAN NATIVE ORCHID SOCIETY

SPRING SHOW

September 27-28, 2014
Saturday & Sunday, 9am – 4pm
Mt Waverley Community Centre
47 Miller Crescent, Mt Waverley
(Opposite Mt Waverley Station, Melways Map 70 E1)

Display
Plant Sales
Cultivation
Conservation
Art
Photography

Australasian Native Orchid Society
(Vic Group) Inc.
P.O. Box 308, Boronia. Vic. 3155
More information: 0429 930 138
or ***www.anosvic.org.au***

ADMISSION
Adults $5
Concession $3
Under 16yrs Free

TALKS and DEMONSTRATIONS

PROGRAMME

SATURDAY, September 27th

10:30am	Native Orchids on Melbourne's Fringe	***Richard Austin***
12 Noon	Effective Conservation	***Richard Thomson***
1:15pm	Photographing Orchids	***Wendy Clark***
2:30pm	Dealing with Pests and Diseases	***Richard Austin***

SUNDAY, September 28th

10:30am	Terrestrials - Potting Mixes and Growing from Tubers	***Helen Richards***
12:15pm	Epiphytes-mounting and potting of epiphytic orchids	***Phil Ritchie***
1:30pm	Orchids in the Field Part 2	***Peter Krake***

BOTH DAYS - ALL DAY

Plant Sales
Orchid Themed Merchandise
Orchid Art and Photography - Display and Sales
Orchid Café - Devonshire Tea and Coffee
Sandwiches, Hot Snacks and Drinks

DIRECTORY OF A.N.O.S. GROUPS (and Associated Societies)

NEW SOUTH WALES

- **ANOS Central Coast**: PO Box 3010, Erina NSW 2250 - (02) 4343 1809

2nd Wednesday each month, 8pm. Narara Community Centre, 2 Pandala Rd, Narara 2250

- **ANOS Far North Coast Inc**: PO Box 949, Ballina NSW 2478 - (02) 6686 6303

3rd Saturday each month (except December), 2pm. C.W.A. Room, River Street, Ballina.

- **ANOS Illawarra**: 2 Wilford St, Corrimal NSW 2518 - (02) 4284 8308

2nd Tuesday each month, 7pm. Old Court House, Wollongong.

- **ANOS Macarthur and District**: 43 Strickland Cres, Ashcroft NSW 2168 - (02) 4681 8589

3rd Thursday each month, 8pm. Birriwa Community Hall, Fitzpatrick Rd, Mt Annan.

- **ANOS Mid-North Coast**: 69 The Lakes Way, Forster NSW 2428 - (02) 6554 9733.

Last Sunday each month, 12 noon, followed by BBQ. Contact secretary for location—Taree or Wauchope.

- **ANOS Newcastle**: PO Box 4021, Rathmines NSW 2283 - (02) 4975 3729.

4th Thursday each month, 7.30pm. Elermore Vale Community Centre, 129 Croudace St, Elermore Vale

- **ANOS Sydney Inc.**: 22 Rabaul Ave, Whalan NSW 2770 - (02) 8824 6338.

3rd Friday each month, 8pm. Senior Citizens Hall, B.H. Community Centre, Conie Ave, Baulkham Hills

- **ANOS Warringah Inc.**: PO Box 421, Forestville NSW 2087 - (02) 9981 2525

3rd Tuesday each month, 8pm. Community Hall, Starkey St, Forestville.

NEW ZEALAND

- **ANOS New Zealand Native Orchid Group**: 42 Titiro Moanna Rd, Korokoro, Lower Hutt 5012

QUEENSLAND

- **ANOS Beenleigh Inc.**: PO Box 1130, Beenleigh QLD 4207 - (07) 3805 1973

1st Thursday each month, 7.30pm. Showground Hall, James St, Beenleigh.

- **ANOS Kabi Inc.**: PO Box 424, Aspley QLD 4034 - (07) 3359 5752

2nd Tuesday all months except January, 7.30pm. Bald Hills Memorial Hall, 2126 Gympie Rd, Bald Hills.

- **ANOS Mackay and District Inc.**: PO Box 138, Koumala QLD 4738 - (07) 4950 1065

2nd Thursday each month, Andergrove Community Centre, Celeber Drive, Andergrove.

- **ANOS Townsville Inc.**: 92 Curie St, Wulguru QLD 4811 - (07) 4778 4311

1st Tuesday each month (except January), 8pm. Townsville Orchid Society Hall, Joe Kirwan Park, cnr Bamford Lane and Charles St, Townsville.

- **Native Orchid Society of Toowoomba Inc.**: 106 Umbiram Rd, Wyreema QLD 4352.

1st Friday each month, 7.30pm. Lutheran Church Hall, cnr West and Alderley Sts, Toowoomba.

SOUTH AUSTRALIA

- **Native Orchid Society of South Australia Inc.**: PO Box 565 Unley SA 5061 - (08) 8261 1550

4th Tuesday each month, 8pm. St Matthew's Hall, 67 Bridge St, Kensington

VICTORIA

- **ANOS Geelong Inc.**: 2 Cooper St, Melton South VIC 3338 - (03) 9743 6040.

2nd Wednesday each month, 7.30pm, Uniting Church Hall, Yarra St, Geelong.

- **ANOS Victoria Inc.**: PO Box 308, Boronia VIC 3155 - (03) 9387-2771.

1st Friday each month, 8pm. Toorak Uniting Church Hall, 603 Toorak Rd, Toorak (Melways 58 K4)

- **ANOS Melbourne Suburbs Group:** PO Box 169, Bayswater VIC 3153 - 0419 720 355.

4th Wednesday each month, 7.30pm. Montrose Primary School, Leith Rd, Montrose 3765 (Melways 52 D7)

WESTERN AUSTRALIA

- **ANOS Western Australia Inc.**: 27 Maidment Parade, Dalyellup WA 6230 - 0419 901 335.

2nd Monday each month, 8pm. Wilson Community Hall, Braibrise Rd, Wilson.

The Australasian Native Orchid Society Inc.
Products Available

ANOS Awards CD

- $20 plus postage
- CD containing award pictures and fact sheets for each award made by ANOS.

A Checklist of Australian Native Orchid Hybrids—9th Edition (2010)

- Hybrid checklist of all Australian Native Orchid Hybrids

Watercolour Drawings

Superb colour prints of J.J. Riley's drawings of Australian Orchids are now available in 3 sets of 8 different species each. **Each set is $15 plus postage**

- **Set 1**

Pterostylis maxima
Dipodium variegatum
Pterostylis daintreana
Pterostylis grandiflora
Cryptostylis erecta
Genoplesium filiforme
Diuris lanceolata
Rimacola elliptica

- **Set 2**

Pterostylis sanguinea
Pterostylis depauperata
Acianthus caudatus
Caladenia concinna
Chiloglottis truncata
Dendrobium kingianum
Sarcochilus australis
Dendrobium striolatum

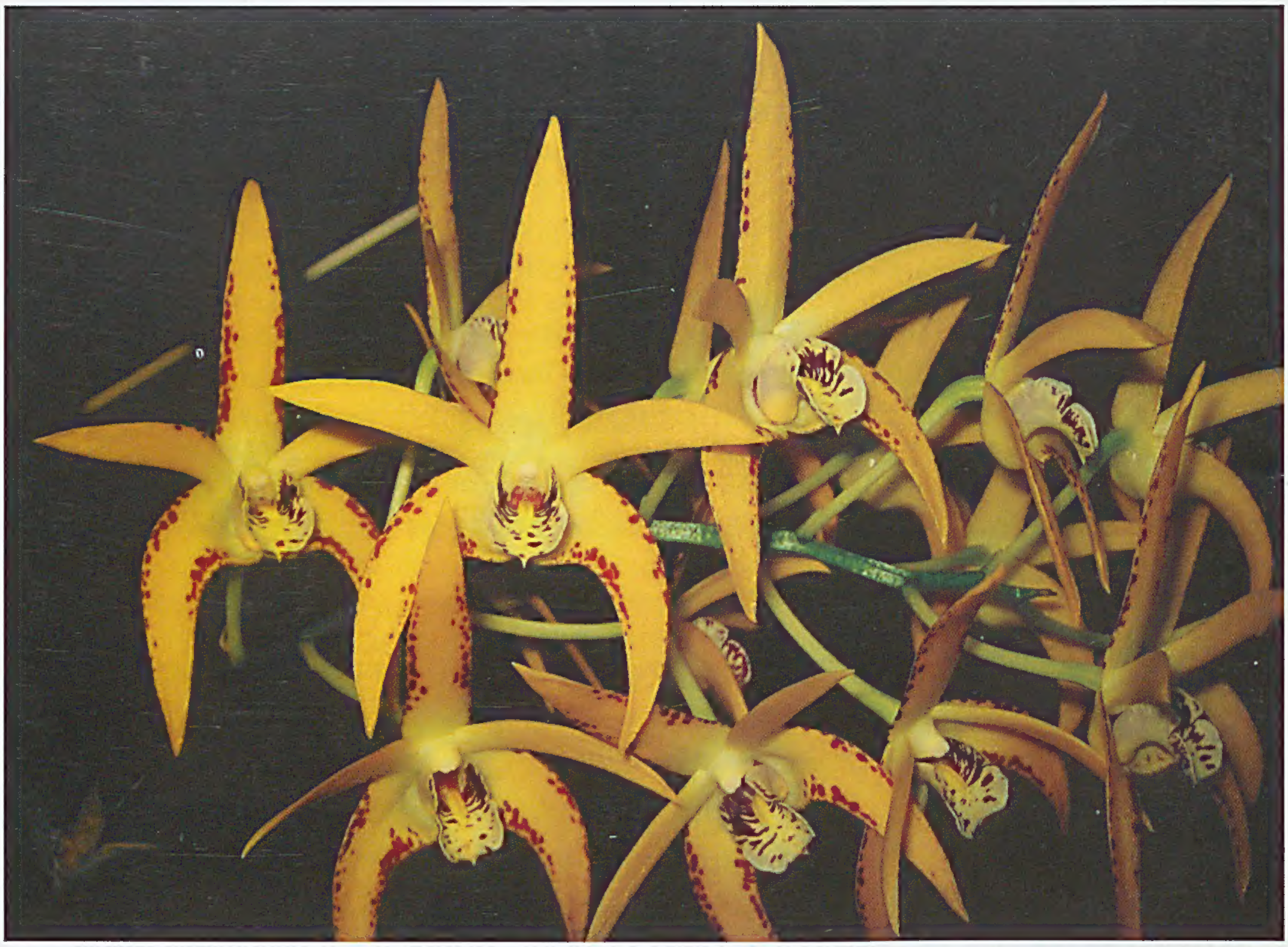
- **Set 3**

Dendrobium moorei
Lyperanthus nigricans
Dendrobium bowmanii
Eriochilus cucullatus
Pterostylis vittata
Sarcochilus ceciliae
Sarcochilus falcatus
Cymbidium canaliculatum

Contact the treasurer with regard to availability of these items and in order to arrange payment.

Meeting Planner: Each row is a week in the month—first at top, fourth at bottom. For instance, Macarthur and Districts ANOS meets on the 3rd Thursday each month.

Weekend	Monday	Tuesday	Wednesday	Thursday	Friday
1st Week		Townsville		Beenleigh	Toowoomba Victoria
2nd Week	Western Australia	Illawarra Kabi	Central Coast Geelong	Mackay & District	
Far North Coast (Sat)	*3rd Week*	Warringah		Macarthur & District	Sydney
Mid-North Coast (Sun)	*4th Week*	South Australia	Melbourne suburbs	Newcastle	



Dendrobium Midas Touch (above), owned by Don Cruickshanks, photographed by David Butler, discussed in his article on page 20 in which he covers some of the great 'golden' parents he has used in breeding. One of the parents of Midas Touch is Den. Avril's Gold (below, J. Villien photo).